LEARNER'S COST EFFECTIVENESS AND QUALITY IN DISTANCE EDUCATION – A STUDY ON SELECT UNDER GRADUATE BBA, BCA AND BCOM COURSES IN ASSAM

A THESIS SUBMITTED IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS
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BY

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of

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CERTIFICATE

This is to certify that the thesis entitled "LEARNER'S COST EFFECTIVENESS AND QUALITY IN DISTANCE EDUCATION – A STUDY ON SELECT UNDER GRADUATE BBA, BCA AND BCOM COURSES IN ASSAM" embodies the result of independent research work carried out by Mr. Mathur Barman. He has completed his research work under our supervision and guidance. Neither the thesis nor any part thereof was previously submitted to this University or any other University/ Institution for any Research Degree or Diploma.

Mr. Barman fulfills the requirements of regulations relating to the nature and prescribed period of research work for the award of the Degree of Doctor of Philosophy (Ph.D) in the Krishna Kanta Handiqui State Open University.

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DECLARATION

I do hereby declare that the research work, which has been presented in the thesis entitled "LEARNER'S COST EFFECTIVENESS AND QUALITY IN DISTANCE EDUCATION – A STUDY ON SELECT UNDER GRADUATE BBA, BCA AND BCOM COURSES IN ASSAM" for the award of the degree of Doctor of Philosophy, submitted to Krishna Kanata Handiqui State Open University is an authentic record of my own work carried out under the guidance of guide and co-guide.

Also, I would like to declare that neither the thesis nor any part thereof was previously submitted to this University or any other University/ Institution for any Research Degree or Diploma.

I would also like to declare that the thesis has been checked for similarity by URKUND bearing ID- D24164730.

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Place:

PREFACE

The present study entitled "**Learners' Cost effectiveness and Quality in Distance Education – A Study on Select Under Graduate BBA, BCA and B.Com courses in Assam**", has made an attempt to study the cost effectiveness and quality in distance education in Assam. In doing so, it has taken up for discussion the history of distance education at the International, National and State level. It has included other aspects like meaning and definition of both distance education and cost effectiveness. The components and quality of distance education has also been studied.

The present study has been divided into six chapters along with the Acknowledgement and Bibliography. Chapter- I provides the Introduction. The Review of Literature has been taken up in Chapter – II. Chapter- III covers the research methodology. Chapter- IV and V take up the analysis and interpretation of data from the learners' point of view and teachers/counsellors point of view respectively. The findings of the study as well as the conclusion and suggestion offered have been covered in Chapter- VI. The present study has found that the cost effectiveness and quality of Conventional as well as ODL mode of education system has had an impact on select under graduate. BBA, BCA and B.Com courses and some aspects the conventional system has made a more pronounced impact.

The primary data has been collected from both learners' and teachers/counsellors of different colleges and study centres through the schedule. The result obtained has been furnished in Chapters -IV and V.

Although this study has been restricted to select under graduate courses in Assam it is hoped that it will be able to add a new dimension to the mode of distance education system.

(Mathur Barman)

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(Mathur Barman)

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CHAPTER - I

1. Introduction

In most of the developing countries of the world, due to the inadequate resources, it is almost impossible to educate all citizens through on-campus teaching (Mwansa 2010-16). A huge investment is needed to establish the infrastructure for on-campus teaching, which is out of the reach of the developing countries. In order to educate the majority of their people, developing countries need to depend on open learning and distance education system. Modern development in educational technology has made it possible to bring useful education nearer to the learner more conveniently. This education is free from all formalities of our traditional classroom education and this emerging system of education is known as distance education (Baruah J 2006, p 100). Distance education is being called upon to meet some of the felt needs in several countries of the world. The nature of felt needs varies from country to country, depending upon the stage of its development, but the needs for distance education is being recognized for a variety of reasons, some of which are common to all, but others are specific to particular countries depending on their individual needs. For instance, in all countries, it is felt that quality of opportunities for education should be provided and that there should be a greater access to higher education. Further, there is a need to provide continuing education to meet the changing requirements of people working in various walks of life. Moreover, the quality of education has to be improved so that it can meet all these demand to make the system innovative and flexible (Reddy G. Ram 1998, p. 5). Though distance education has been catching up very fast in all countries – developed and developing, socialist and capitalist, western and non-western, it is still little known and little studied. There is no one meaning of the term 'Distance Education'. It is known by a variety of names viz, 'Correspondence Education', 'Home Study,' 'Off Campus Study,' 'Open Learning', 'Open Education' etc. But there are also several correspondence institutions that depend only on one

medium viz - the print material. Distance education today lays emphasis not only on various print medium, but also on other various media. In fact, the multi-media approach is the corner stone of distance education system.

1.1 History of Distance Education in the World

It is well-known that distance education has been a part of the European education scene for about 150 years. Teaching by correspondence education originated in the private sector as enterprising individuals realized that existence of a cheap and efficient postal service, would enable them to provide a teaching service to home based students (Rumble 1998). By the end of the nineteen century several publicly funded institutions along with private colleges offering correspondence education had come into existence in many European Countries and the USA. For example, Skerry's College, Edinburg (1878), Foulks Lynch Correspondence Tuition Service, London (1884), University Correspondence College Cambridge (1887) taken over by the National Extension College(1965) Diploma Correspondence College, Oxford(1894) presently known as Wolsely Hall, are some of the well-known Institutions that came up in England (Dinsdale 1953).

During the first half of the twentieth century distance education made at the tertiary level in Australia dates as far back as 1911 when the University of Queensland entered the field of correspondence education (Store and Chick, 1984).Australia can claim to be the first country to have shown in a systematic way, and on a large scale,that it was possible to provide by correspondence, a complete primary and secondary education,for children who had never been to school. It is interesting to note that this Australian supervised correspondence education began as a result of individual initiatives (Rayner, 1989).The movement spread to the other provinces of Australia, to New Zealand, to West Africa, to Canada and to USA. Today these countries educate thousands of children by this method.

In Russia, distance education was born in the post 1917 revolution period out of the necessity to train thousands of volunteers who offered to teach illiterate adults throughout the country in which about 76 per cent of the population was illiterate in the early 1920s. As a result of this massive campaign illiteracy was completely eradicated within two decades (IIyin, 1983).

In 1939 the French Government set up the Government Correspondence College, now the Centre National De Tele- Enseignement, with the objective of providing education to school children.After the outbreak of the Second World War, the education of school children was at risk as teachers were called up and children evacuated. After 1945 the centre continued as a regular part of the state education system (Perration, 1978).

Distance education took deep roots in several countries of the world in the 1930. The Founding of the International Council of Correspondence Education (ICCE) in 1938 is indicative of the fact that the idea caught the attention of the Educationists throughout the world. The first world conference of this Council was held in Victoria, British and Columbia, in August 1938 and 88 delegates mostly from Canada and the USA attended the conference. Australia, New Zealand and Scotland were also represented; Mr. Rex C High was elected the first president of ICCE. After the Second World War, the method of correspondence education was adopted to suit the particular educational needs and requirements of countries in the Afro-Asian region and elsewhere by 1960s, it was considered as vital to supplement the conventional system of education and gain further recognition.

The foundation of the British Open University in 1969 marks the beginning of a newera, in which degree giving distance teaching universities with full-fledged degree programs, sophisticated courses, new media and systematic systems of evaluation cropped up in various parts of the world. Whereas up to the 1960s the large scale distance teaching organizations had with a few exceptions been private

correspondence schools. The new era saw publicly supported and established universities and schools becoming more and more important. An outstanding pioneer in this respect is the University of South Africa, which emerged as a development of the University of Cape of Good Hope, founded to start teaching at a distance in 1946. The University of South Africa was definitely established as a distance teaching university through a governmental decree of 1962 (Boucher, 1973).

In commonwealth countries in particular, distance education has become a priority for International cooperation's and an example of this trend is the establishment in 1988 of the Commonwealth of Learning (COL) in Vancouver, Canada, by Commonwealth Governments. The prime concern is to promote cooperation among Universities, Colleges and other institutions within the Commonwealth countries applying new technologies and furthering distance education (COL, 1991).

1.2 History of Distance Education in India

Since independence in 1947, Indian adult education has been dominated by an ideology of westernization. In an environment of changing policies for adult education in India, in the historical context of shifting educational priorities has been undergoing a transition in response to the changing nature of the individual state and its developmental approach. In the Indian context, adult education in general deals narrowly with adult literacy education. Hence, the focus is on adult literacy policy and programme and not on adult education in the broad sense. Nevertheless, an effort is made to highlight the extent to which general education policy has paid attention to non-formal education with the formal education (Daswami. C.G et. AI. 2000, pp. 3.68).

After so many years of independence, though many changes have been brought about in the formal education system,it is criticized that the existing system of

education is largely unrelated to life and there is a wide gulf between its content, purpose and concerns of national development. The Indian Education Commission (1964-66) stated the nature of the transformation needed in our education system as, what we wish to emphasize is its urgency. Thus, there is the imperative need to explore the methods of improving literacy rate along with the required achievement level through systems other than formal. In this effort, the concepts and practice of non-formal, adult and continuous education have emerged. Now, the concept of education is not restricted to formal education and distance education and it is education for all through qualitative and scholastic development (Singh Mubarak, 2004, pp.7-9).

In the light of the observations of the Planning Commission and the Central Advisory Board of Education, the Ministry of Education Government of India constituted an expert committee in the year 1961 handed by D.S. Kothari to look into the suitability of correspondence course for expanding and equalizing educational opportunities. The committee recommended the introduction of correspondence course in the art and commerce facilities as a pilot project at Delhi University in 1962. This elicited a very encouraging response from thousands of learners who could not go to the traditional institutions for receiving higher education.

Distance education as a mode of teaching has become popular in India with the establishment of two open universities in our country. In 1982, the Andhra Pradesh Government gave a lead to the country by starting the first State Level Open University in India, Andhra Pradesh Open University located in Hyderabad, now known as Dr. B.R. Ambedkar Open University and in 1985 Indira Gandhi National Open University was established with a Parliamentary Act.

This mode of teaching stands for both distance teaching and learning. The institution which provides distance education must have a well-organized setup to

provide two types of functions namely ‘academic’ and ‘industrial’. ‘Academic means developing and preparing course materials according to the needs of the learners. Industrial implies timely publication and distribution of these study materials. The two open universities in our country are supported by distance mode of teaching and consequently distant education is very often referred to as open learning (Goswami, Renu, 2000.P.152).

Coming to the Indian scenario, three terms are generally used, ‘external appearance’ or ‘private appearance’, ‘correspondence education’ (printed media) and ‘distance education’ (Multimedia) which are most popular. Correspondence course was started first by Delhi University in the year 1962. Today, many institutions offer correspondence course to distance learners and it has become a very popular method of teaching in informal sectors of education. Now, some of the Universities have designated it as ‘distance education’ and ‘open university system’ (Sarma, R.A. 1985, P.1).

1.3 History of Distance Education in Assam

In Assam, with a motive to increase the rate of literacy and make education reachable to the nook and corner of the state, Indira Gandhi National Open University(IGNOU) has introduced its regional centre in Guwahati in the year of 1996 with a total of six study centres and 35 programmes with approximately 1100 learners. As on date regional centre Guwahati has 30 learners support centre 588 academic counselor and 68 academic programmes for offering different degrees. Since the establishment of regional centre Guwahati a cumulative total of 93429 learners have been registered with Regional Centre Guwahati.

The Institute of Distance and Open Learning (IDOL) formerly known as Post Graduate Correspondence School (PGCS) under Gauhati University was established in May 1998 with the objective to ensure the opportunity to pursue

quality higher education to the large number of students who could not pursue higher education through conventional mode of education. IDOL strives to accommodate the students who can not enroll in the conventional system of higher education due to various factors like limited number of seats in Post Graduate classes, livelihood compulsion etc. and aims to impart quality education in an intellectually challenging learning environment.

IDOL completed 18 years of successful existence in May 2016 and aims to continue the mission of spreading and providing quality education to the students. Starting with 514 students and 6 courses, IDOL now witnesses its growth in all capacities with an enrollment of more than 15000 students and 25 programmes in a learning environment equipped with latest technologies. IDOL is the only institution in the country to offer Post Graduate courses in five 8th Schedule languages viz Assamese, Nepali, Bengali, Bodo and English. With the commitment to ensure quality education to the masses, IDOL has launched'undergraduate programmes' from the academic session 2011-2012 and the journey from 'correspondence school' to 'open and distance learning' is not only a leap in quantity but also in quality. Moreover the Directorate of Distance Education, Dibrugarh University also provides distance education in the state of Assam.

Krishna Kanta Handiqui State Open University (KKHSOU) is the first Open University in North East India as such; it has a huge social responsibility for the people inhabiting this region. According to the 2011 census the literacy rate in North East India is 68.5% with female literacy at 61.5%. According to the UGC data over 5 lakhs students from the 8 states of the North East went outside the region in recent time due to lack of proper higher educational facility in North-East region. Krishna Kanta Handiqui State Open University (KKHSOU) has been looked upon as the torch bearer of open and distance education in the North

Eastern Region in general and Assam in particular. Established by an Act of the Legislative Assembly of Assam in 2005, the University stared functioning from December, 2006 as the 14th Open University in the country and the first state Open University of the North-East India and launched its first academic programmes in January 2008. The KKHSOU is recognized by the Distance Education Bureau (DEB), University Grants Commission (UGC), Ministry of Human Resource Development (MHRD) and National Council for Teacher Education (NCTE). The University was established with six schools of studies and one institute of research for the smooth conduct of its academic activities and research. The University is running with six Bachelor's Degree Programmes, twelve Master's Degree Programmes, seven Post-Graduate Diploma Programmes, nine Undergraduate Diploma Programmes, two-year Diploma in Elementary Education for Primary School Teachers and twenty four Vocational Certificate Programmes, through 300 study centres. The Ph.D Programme, for a very limited number of students is provided at the head quarter only as per the UGC guidelines of 2009. The University has completed 11 years of its existence and within this short span of time it has been able to make it roads into every nook and corner of the state of Assam to reach the unreached providing quality education through open and distance mode. There has been a phenomenal rise in the number of learners, from 2623 during 2007-2008 academic session to 102 230 during 2013-2014. KKHSOU also provides free education to differently able persons including the visually impaired, as well as the Jail inmates of three central Jails of the State located at Guwahati, Jorhat and Abhayapuri. A Community Radio programme popularly known as Jnan Taranga was set up by the University in 2010. This was later converted into e-radio for enabling anyone from anywhere to get the benefits of the Jnan Taranga radio service through internet.

In recent years, technology which means "application of knowledge to the practical aims of human life has been used in particularly every field of study. However for a variety of reasons, the field of education has been reluctant to make use of it. Nevertheless it has greatly changed the educational scenario in the distance courses by its enriched teaching in substantial measure (Sarma, R. A. page 75).

1.4 Definition of Distance Learning

Distance education, simply and broadly defined, is the system of education in which education is imparted to students from a distance. It contains two basic elements: (a) the physical separation of teacher and learner; and (b) the changed role of the teacher, who may meet the students only for selected tasks such as counseling, giving tutorials or solving students' problems. The system is heavily dependent today upon the printed material or instructional material, supplemented partly by the electronic media, radio, television, and computer, in addition to limited face- to-face contact sessions (Manjulika, S.V & V. Reddy).

The important characteristic of distance education is its industrialization of the teaching process. Distance teaching/education is a method of imparting knowledge, skills and attitude which are rationalized by the application of division of labour and organizational principles as well as by the extensive use of technical media, especially for the purpose of reproducing high quality teaching material which makes it possible to instruct great numbers of students at the same time wherever they live. It is an industrialized form of teaching and learning. (Peters, 1973)

Distance education is that field of educational endeavor in which the learner is quasi-permanently separated from the teacher throughout the length of the learning process: a technological medium replaces the inter-personal

communication of conventional oral,group-based education, the teaching / learning process institutionalized (thus distinguishing it from the teach-yourself programmes).Two–way communication is possible for both student and teacher(thus distinguishing it from other forms of educational technology) .It represents an industrialization of the educational process(Kengan 1983). Rumble (1997) defined open and distance learning system comprising at least of three sub-systems:

- The regulatory sub-system: such as human resources, purchase, finance, equipment and building;

- The material sub-system: such as production and distribution of learning material;

- The students support system: such as to enroll students, collection of fees, allocation of study and examination center.

The above classifications on the concept of open learning and distance learning shall facilitate to study the cost analysis of distance education system.

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-continuously, and the two-way communication between teacher and student necessary for the educational process is technologically mediated.

1.5 Components of Distance Education

The main components of distance education are as follows -

1. Courses and curricula define the profile of a system or institution. They should be related to the mission and to defined needs or markets. Generally course are set in the same manner as in conventional education in terms of content, admission and assessment.
2. Teaching strategy and technique
3. Learning materials and resources
4. Communication
5. Support delivered locally
6. The student and staff management
7. Effective management and administration
8. Housing and equipment
9. Evaluation (UNESCO,2002)

1.6 Meaning of Cost Effectiveness

Cost effectiveness is a concept borrowed from the Lexicon of Economics which is concerned with comparing different ways of achieving the same objectives such that the most cost-effective choice will be the least costly of the alternatives being compared. (Thomas & Martin,1996).

Greville Rumble (1997) explains effectiveness in a general way: Effectiveness is concerned with outputs. An organization is effective to the extent that it produces outputs that are relevant to the needs and demands of its clients. This implies the existence of criteria by which the organization's success in this respect can be measured. There are different kinds of effectiveness and cost effectiveness is only one of them. An area where much research has been conducted much research is

that of learning effectiveness. Learning effectiveness will in many cases be closely related to cost effectiveness. If programmed learning leads to learning effectively it has the potential of being cost effective.

NG (2000) states that it is important not to mix the concept of efficiency and cost effectiveness. It is possible for a programme to be efficient but not cost effective if the output which are actually produced do not contribute to the programmed objectives. In that case, it may be efficient at doing the wrong things.

UNESCO (2002) stated that open and distance learning is not necessarily the most cost-efficient approach – but then there is no reason why it should be necessary. Distance education methods may be the only way to reach some target audiences in which case lowering the cost of education will not necessarily be an objective of distance education. This will allow for the enhancement of opportunities that will support education for all and lifelong learning for all and also provide avenues for the acquisition of flexible and qualitative education for all categories of learners to justify the carve for learners' achievement.

We can describe a strategy as cost effective if it is, less costly and at least as effective, more costly and more effective with an added efficacy that is worth paying the additional price for, less effective and less costly, where the additional cost of the alternative is too high for the additional benefits provided. However it does not just mean the cheapest strategy.

The high cost of education affects students in higher education, to which distance education may be an alternative in order to provide same relief. Distance education has been a more cost effectiveness form of learning and can sometimes save students a considerable amount financially by removing the cost of transportation. In addition, distance education may be able to save students from the economic burden of high-priced course text books, by providing e-text books, which can offer digital text-books for a reduced price in comparison to traditional text books. Also the increasing improvements in technology have resulted many

school libraries to have having a partnership with digital publisher that offer course materials for free, which can help students significantly with educational cost. It is important to know that whether the cost effectiveness of distance learning programmes are the actually cost efficient. A study by Phelps et al (1991) found that "the potential cost-effectiveness of using online technologies in distance education is still uncertain" (page 303). The study further showed that the concepts of cost and effectiveness are not as simple as they first appear. Atkinson (1983) notes, it is possible for a programme to be efficient but not cost efficient if the output which are actually produced do not contribute to the programme objectives, that is it may be efficient at doing the wrong thing(page 303).

1.7 Quality in Distance Education

Assurance and sustenance of quality in education is a complex phenomenon. Different educationists have perceived quality education in different ways. Thus, quality of education means quality of teachers, quality of learners, quality of courses, quality of planning and management, quality of infrastructure / resources and quality of teaching and evaluation methods. In terms of the system approach the quality of input and process will shape the quality of outputs that the graduates of the education system. Therefore, the quality of distance education is not a one-time affair. It is a continuous process involving sustained efforts. Open Distance Learning (ODL) in the present form is an emerging mode of imparting knowledge, skills and attitudes to learners in a non-contiguous situation. Information and communication technologies (ICTs) have provided various options of imparting education which is an essential component of any system to succeed. As a result, distance educators today are equipped with a variety of means and methods of education and training to make the education resources

accessible to all those who want to have it as per their needs and convenience. Distance education institutions in any country are established with the main objective to democratize education as a resource and provide every citizen, irrespective of sex, caste and creed, easy and affordable access to quality education. It is desirable for the distance education institutes to proceed by maintaining high quality standard. Quality dimension of ODL system is more complex as it requires the integration of a large number of activities, processes and operations. Various academic and administrative units are involved in the teaching, learning and evaluation process. ODL system, therefore, has to commit itself in maintaining high quality in pedagogy, content as well as learner support services.

1.8 Principles of Quality in ODL

Chickering and Gamson (1987) discussed seven principles for good practice in Open Distance Learning. These are:

- Encouraging and maximizing contact between learners and teachers: Communication between the learners and the teachers is important for enhancing motivation and involvement and hence facilitate learning.

- Developing relationship and Promoting collaboration among learners: Peers can be invaluable in the learning process. Sharing ideas, resources, problems, etc. promotes higher level learning among them. Quality distance education should promote collaborative learning.

- Incorporating active learning: Active learning involves application and solving, research and simulation.

- Giving rich and rapid feedback to learners: The learners therefore should be able to assess their own learning as well as get feedback from others about their strengths and weaknesses.

- Giving stress on time-on-task: Distance learning environment should be rich with reading, activity and interaction. The learning points should be easily accessible to the learner.

- Setting high standards for learners' performance: Distance learning materials should be challenging in providing opportunities for interaction, collaboration and activity. Objectives should be clearly set for the learners to achieve.

- Paying to respect individual differences and allowing opportunities for learning that acknowledge those differences: Learner characteristics, learning styles and learner challenges in ODL are considered while designing learning materials so that the learners feel self-motivated, focused and assertive, willing to assume responsibility for their own learning. Distance learning should be organized in such a way that based on their experience and learning context / environment learners find their own ways for approaching problems, completing tasks and using learning materials.

1.9 Concept of Quality Assurance in Open and Distance Learning

Quality has always been an issue in open and distance education and distance learning. The Commonwealth of Learning (1999) defines quality assurance as approaches to organizing work that;

- Ensures the institution's mission and aims are clear and known to all.

- ❖ Ensures the systems through which work will be done are well thought out, fool proof, and communicated to everyone.
- ❖ Ensures every one's responsibilities are clear and understood.
- ❖ Defines and documents the institution's sense of 'quality'.
- ❖ Sets in place systems to check that everything is working as per plan and
- ❖ When things go wrong – and they will – there are agreed ways of putting them right.

Quality Assurance should therefore be an integral part of any open and distance learning operational systems and processes. Since the inception of open and distance learning programmes and its subsequent widespread diffusion, it has increased considerably the access to education for many students seeking in university education and this reality that has compelled many countries to adopt the distance learning mode as part of their educational system. According to Deshpande & Mugridge (1994) and Tait (1997), numerous reports have been published to share ideas, experiences, and articulate the 'how and how not to' and also the 'best practices' of quality assurance implementation in open and distance learning educational contexts from around the world as a result of pressures for quality emerging from both internal and external parties. Internally, open and distance learning institutions are being challenged to undertake continuous improvement from within. Externally, stakeholders (i.e., users, consumers, educational founders) are persistently questioning the quality, accountability, effectiveness and efficiency of educational endeavour in which they have interest. Generally, quality assurance in open and distance learning covers a number of aspects, which includes the physical products, pedagogical processes, production and delivery systems, and philosophy COL, (1997). Quality of products include

course materials, number of graduates, examination pass rates, admission in further studies, and so forth. Quality of processes cover areas such as learning and teaching processes, advising students, coordinating external course and test item writers, networking with regional offices, managing student information. Quality of production and delivery systems includes course production, print and multimedia production, test item production, scheduling, warehousing and stock control, getting materials to students, and broadcast transmissions. Quality of philosophy cover such things as ODL vision, mission and policy statements, institutional culture, governance, corporate culture, and public image COL, (1997). Koul (2006) remarked that considerable emphasis should be given to the learning design aspect of distance education. He identified ten factors grouped into three dimensions to contribute to quality assurance in open and distance learning. The core dimension includes two factors viz. one, course materials, instructional design, teaching-learning including evaluation practices and learner support services and two, learner centricity of support services, research and capacity building. While there are several factors under the 'systems' and 'resources'.

1.10 Statement of the Problem

The conventional system and the distance education system are placed in Assam like other regions. There are different costs in the different parameters, from learner's point of view. It is now important to examine the cost effectiveness of Distance Education as compared to Conventional Educational system in relation to the quality aspect. This will enable the researcher to put forward the logical understanding of the cost and quality relationship from the learner's perspective.

1.11 Significance of the present study

We are now in the 21st Century, a new century of challenges and opportunities. India is dreaming to be a developed and leading nation of the world by 2030 for which the right type of higher education is a must. Again, it also must be recognized that college education, which is the starting point of higher education, essentially forms the gamut of effective higher education. The college sector accounts for over 88% of the total enrolment in higher education in India. Although few Autonomous colleges are there in India but most of the colleges are affiliated to various Universities. Quality and effectiveness of higher education entirely depends on the collegiate education. It is seen that after independence and more particularly after 1990, the number of higher education institutions in India has been rapidly increased. The major strength of Indian higher education today is 704 Universities of degree awarding institutions more than 36,000 colleges and over 20 million students. Indian higher education is the third largest higher education system in the world next to the USA and China. There has also been a remarkable growth of higher education institutions in Assam in recent years resulting in about 20 University level institutions including IITs and private universities. There are about 517 affiliated colleges under Gauhati University, Dibrugarh University and Assam University. About 94% higher education students in Assam are in the affiliated colleges. Although there has been remarkable growth of higher education in Assam, College education is under severe stress. Although we have 517 colleges in Assam, but all colleges are still not eligible for the UGC financial grants as only 259 colleges have so far been recognised by the UGC under section 2(f) and 12(b). There are only 189 provincialized colleges in Assam; recently few more colleges have been newly provincialized. A considerable number of colleges are running without government assistance. The National Knowledge Commission has suggested for

more autonomous colleges but in Assam there is only one autonomous college which was granted recently. The gross enrolment ratio of higher education in Assam is far below than the national average, which is only 13% as against 19% of the national average GER. Even in Manipur, the GER in higher education is 35%. The number of colleges in Assam is only 13 colleges per lakh population whereas it is 23 colleges per lakh population in India. There is a remote possibility of attaining 30% by 2020 through the conventional Universities. The present trend suggests a vast scope for capacity enhancement of the ODL system. It would thus require additional infrastructure and ICT support. The greater use of new ICT is supportive of the paradigm shifts in education sector from Conventional to ODL system of education. Learners of the future will not be passive recipients but active processors of information and consumers of varied knowledge products. Paradigm shifts in education has implication on learners' autonomy- it is becoming not only possible but also a passion for today's learners to select courses and curriculum from anywhere in the world. The Open and Distance Learning (ODL) system has been the key dispersal agent in the movement towards a post-industrial society characterized by globalization (International conference on promotion of open schooling GOA-III ,23-25 Jan 2005).

In the context of the above, the proposed study will certainly reflect the attitude of learners of Assam towards open education system and conventional mode of education system regarding cost effectiveness and quality. This study will also build a foundation for promoting more and more learners into the open education system and apart from this it will fill up the gap in existing literature regarding cost effectiveness and quality in both ODL and conventional mode of education.

CHAPTER -II

2. Introduction

Reviewing the literature for the present study, the investigator has tried to explore various available sources (print and non-print), besides studies conducted by various researchers in the field were consulted and some of them were also conducted physically and electronically to obtain firsthand information for their studies.

2.1: Study related to distance education in International Level

Harris,W.J. (**1975)** conducted a study on the distance tutor in correspondence education. The researcher completed a survey of 569 faculty members (tutors)from seven correspondence institutions in England. He found that 99% of the faculty worked part time with 55% handling only one course. Three fourths of the tutors were man and one tenth was retired from full time work elsewhere. Only 15% of the tutors were under age 28. 30% did not have previous teaching experience.

N. Mackenzie, R. Postgate and J. Seupham (1975) made a study on open learning systems and problems in post-secondary education at Paris, UNESCO. They observed that research and education have greater importance in open learning than they had in conventional because –a) innovative proposals require more documentation, b) distance learning systems involve such costs of advance, production and distribution that they are not easily modified and must be used for a considerable number of years, c) authors do not come in close contact with students using the materials, making it hard to know when revisions are needed, d) visiting to the public as well as to students within some delivery modes reinforces the need for careful planning and analysis.

W. Perry (1977) conducted a study at the Open University in U.K. The target learners were asked about their awareness of the existence of the Open University. The study revealed that over a period of five years (1971to 1976) in the U. K., only 64% of the total adults population had come to know about the University. From 1971 to 1976 the percentage of men being aware of the Open University increased from 33% to 76% and the percentage of women being aware of it increased from 29% to 58%. Further, during the infant stage of the institution, a sample survey of 3000 adults revealed that just 55 of the total number of respondents were interested in joining the Open University courses and 0.9% respondents wanted definitely to be amongst the first applicants.

J. Mutanyatta (1989) made a study on formative evaluation of distance education at the University of Botswana. The researcher suggested that the University should supply extra reading materials to students, particularly for theoretical subjects. Correspondence texts should include supplementary materials, and arrangements should be made either to photocopy some of those materials or provide them with the text or to enable the students to borrow materials from the national library network. Correspondence courses are taken as a private study and the employer is to permit study time during working hours. Consequently, the institute must assist students to secure time off from their employers. The only way that this can be done is for tutors to make visits to the students' workplaces.

N. Venkataiah. (1989) conducted a study to evaluate preparation of course materials for distance education courses. The two approaches that are followed in India with respect to the writing of instructional materials i.e. preparation by the faculty of the correspondence institutions or by outside authors, were examined in the context of various deficiencies and inadequacies,including cost effectiveness vis-à-vis the Course Team approach and its effectiveness, particularly, for the

Indira Gandhi National Open University as a national resource centre for all open universities at the state level. The researcher concluded that A) Adequate attention must be paid to the writing of course materials. The standard or quality of instructional materials should not be sacrificed whatever might be the financial constraints B) The Course Team approach of the British Open University, though expensive, is feasible, economically viable and justified if the course material is used for a large number of students and C) In view of the large number of students for its course, this Course Team approach will be feasible, economically viable and will also ensure good –quality materials.

G. Kuruba (1999) studied the role and development of distance education in African countries in general and Botswana in particular. According to the author Distance education plays a vital role in overcoming the various problems faced by the counties of Africa and development of human resources. The University of Zambia, Zimbabwe Integrated Teachers College (ZINTEC), the private institutions such as the Zimbabwe Distance Education College (ZDECO) , Makerere University of Uganda, Tanzania Open University, the Centre for External Studies, University of Nairobi has played an important role in the provision of distance education in Africa. Botswana's thrust in the field of distance education is relatively new when compared to some of the other African nations. The Botswana Extension College and the Centre for Continuing Education, University of Botswana are the major developments in the field of distance education. Although distance education is widely accepted and used, a number of problems are identified in its use. These problems can be overcome by improving the whole package of the distance education system, particularly the quality of materials for self-learning, the effectiveness of the feedback system, and the effectiveness of face to face interaction at different intervals. The use of modern technology, mode of instruction and support service needs to be

strengthened. The collaboration with other institutions coupled with the government support will further strengthen the system.

Hulsman, Thomas (2000) made a brief review on Costing of Open and Distance Learning.This study was deliberately selected to give a fairly wider view on the cost of Open and Distance Education. They concluded that Open and Learning System is cost effective compared to traditional face to face classroom system of teaching, and has the advantage of economies of scale .However,studies on costing in open and distance education in India ,especially the costing of audio video information technology, are still in its infancy.

Wei, Yuan Zhang and Venkaiah, V. (2000), conducted a preliminary study of current state of distance education research in India. This study was an attempt to report on the current state of distance education research in India. It was intended to give a better understanding of the current state and problems of distance education in India. The investigator regarded the study as a preliminary one, but there are also many areas in this study that needs to be improved and enriched. Although the returned percentage was above 70% there are still some important data missing from the other 30% conference participants.

Squandre, E (2003) conducted a study to examine the constrains in academic learning and cognitive growth in distance institutions in comparison to the general classroom learning. The study's results confirm that it is vitality of the classroom that makes an impact on academic learning and intellectual growth.

Antony, Stella and A. Gnanam (2004) made a study on the Quality Assurance in Distance Education, the challenges to be addressed. The researchers concluded that the emergence of the new forms of education has changed the nature of distance learning and consequently the quality assessment mechanisms.In

particular, the distance education provisions that cross rational borders cause concern to the quality assurance agencies the world over. The researchers imply that along with how to assess the new forms of distance education the quality assurance agencies have to reflect on how to coordinate the quality assurance activities at the international level.

Q.M.G.Ahsan and S.M.M.Ahmmod (2005) analyzed the study habits of distance learners of Bangladesh Open University. This study focused and identified the type of study habits of ODL learners at BOU. Tutor attitude, frequent changes in pronounced schedules and assessment delays act as important demotivates for such learners. It was suggested that ODL universities should not only take the responsibility to communicate the features of Distance Education system to the learners before their joining but also to develop the system for improving the study habits of the existing learners. Such improvement of the study habits may also lead to the improvement of the supports from ODL universities and to the reduction of drop out of the distance learners.

S. Assefa (2006) investigated conduciveness of distance learning environment of Eastern Ethiopia. The study was conducted with the intention of finding out perceptions of learners about psychosocial environment, institutional support, home environment, and study centre environment and gender and to find out how the environmental variables influenced SGPA of distance learners. The study revealed that there are no gender differences in perceptions of distance learners with respect to psychosocial environment, institutional support, the home environment, and the study centre environment for distancelearners. All students felt that the distance learning environment in eastern Ethiopia is below average and it is not a conducive learning environment in its present status for distance learning. The environmental variables were found to affect the Semester Grade Point Average (SGPA) of distance learners only indirectly. The researcher concluded that enhancing the quality of distance education mainly depends on

raising the quality of study materials, provision of facilities and support for distance learners.

Jenkins, Jonathan (2008) made a study on the Access to Quality learning for development as discussed in the fifth Pan Commonwealth forum on Open Learning. In the study, he summarized that understanding and learning experience should address quality issues and improve the outputs, but it is equally necessary to understand the outcomes.

K. A. Sampong (2009) investigated the evaluation of a distance teacher education programme in a University of Ghana and found that the distance teacher education programme of the Centre for Continuing Education of the University of Cape Coast (CCEUCC) is fulfilling its purpose of upgrading the academic and professional competence of a large number of teachers in the basic schools in Ghana, raising their performance level and equipping them with skills for lifelong learning. The gap between these objectives and the programme's performance, as perceived by students in the program, faculty, and administrators, is not so big that it cannot be closed. Constant review of performance is needed to completely close the gap.

R. E.Taow et al. (2010) emphasized on the role of Open and Distance Learning in the attainment of United Nations Millennium Development Goals (MDGs) in Cross River State of Nigeria. The main focus of the study was to access the overall views of Open and Distance Learning students (ODL) on the adequacy of Correspondence Education Programme (CEP); Radio and Television Education Programme (RTEP); and Internet-Based Education Programme (IBEP) methods in the attainment of United Nations Millennium Development Goals and education for all in Cross RiverState of Nigeria. The study revealed that a higher percentage of learners feel ODL methodologies create maximum access to

learning for all and as well provide functional literacy skills, relevant in the attainment of the eight point UN MDGs.70% felt their time was wisely and gainfully used in terms of access, continuous learning, augmentation between work and studies. This implies that, the adults would want to take part in the MDGs programmes, provided their time is effectively managed by the facilitators of the programmes. 75% viewed ODL methods of Educational Radio and Television Programme (ERTP) and Internet Based Education Programme (IBEP) help them acquire unlimited access to vocational and functional literacy education relevant in meeting MDGs target. It was suggested that the views of the benefiting individuals, groups and nations shall have to be taken into account while designing and implementing programmes for the attainment of the UN Millennium Development Goals in Cross River State and elsewhere.

N.K.Jamandre (2011) conducted a study on quality assurance in distance education achieved in the Philippines. This paper is an attempt to analyze and synthesize the developments and challenges of the University of the Philippines Open University (UPOU) which offers the Distance Education (DE) Program since1995. The paper focuses on the quality of distance education, administrative service, faculty development, and student feedback. The UPOU faces various challenges on government, private sector, non-governmental organization, and academic support for policy and budget for technology and multimedia upgrade; organizingand training Distance Education scholars, specialists, personnel and practitioners; relevance and competitiveness of programs and curriculum; establishment of more digital learning centers and learning object repositories; strengthening collaboration with other universities, including the Asian Association of Open Universities (AAOU) and in the Southeast Asian Region; student retention and technological support; assessment methods; research agenda and bridging the pedagogical gap of acceptance. The UPOU is determined to address these educational realities to prove that Distance

Education is beyond an alternative to conventional university, and is aviable academic institution based on a learner-centered paradigm for more Filipino students.

A. Mahmood , S.T.Mahmood & A.B.Malik (2012) made a study to compare student satisfaction level in distance learning and live classroom at higher education level in Pakistan . The objective of the study was to compare the level of student satisfaction of graduate distance learning educational psychology course to a traditional classroom educational psychology course taught by the same instructor. The sample consisted of eighty graduate students from each programme who were enrolled in Allama Iqbal Open University's distance learning and International Islamic University's traditional classroom programs during fall semester 2009 in course of educational Psychology and completed their course in this session. Both courses were taught by the same instructor. It was found that students both from distance learning and traditional classroom showed a high level of satisfaction. There wasslight difference related to satisfaction with timely feedback to students, accessibility of resources to complete assignments and amount of student to student interaction between both distance learning and traditional classroom students.

I. Hussain (2013) conducted a study on learners' reflection and skills of distance education tutors in Pakistan. In the study, the researcher found that the overall reflection of distance learners and skills of their tutors was positive. They were also satisfied with the skills of their tutors. They asserted that their tutors had academic and tutoring skills .The researcher suggested short and long term training for distance tutors to use latest ICTs.

2.2 Study related to distance education in India:

Different relevant studies on distance learning in India from 1970' to 2012 are discussed below.

R. Dutt (1976) investigated the growth of correspondence courses in India.The study revealed the enrolment trend of correspondence courses from 1971 to1976 taking into consideration the nature of courses, annual compound rate of enrolment and level of courses. He found that all the institutes had the provision for personal contact programme.

B.N. Biswal (1979) conducted a study on correspondence education in Indian Universities at M.S. University, Baroda. The study revealed that the objectives of correspondence courses offered through different universities remained almost same all over the country; the academic staff pattern remained more or less similar in all the universities, whereas differences were witnessed with regard to administrative staff patterns; enrolment rate was found to be higher in Arts, and Commerce Education than in other disciplines.

J. Singh (**1981)** made a study on correspondence education programme of the Patrachar Vidyalaya at the Centre for Educational Technology, NCERT, New Delhi. The objectives of the study were- a) to study the characteristics of students of the correspondence courses; b) to find out the reasons preferring correspondence education to regular school education; c) to study the process of planning, preparation and dispatched of lesson units to students; d) to study the organization of personal contact programme and e) to make suggestions for better functioning of the programme. He found that students in the two correspondence courses were spread over a wide range of age levels of 15 years to 37 years. About11% and 19% of the boys and girls respectively were married. Quite a few students belonged to rather low socio-economic status. By and large, the students found the lesson materials interesting and easy to understand.

G. Mani (1983) made an attempt to evaluate learning support systems of the distance education programme of Madurai Kamaraj University. The study revealed teachers lacked skills such as mastery of subject matter and effective

communication, efficiency in clearing doubts, skill in motivating adults, use of various teaching methods and proper modulation / pronunciation / accent etc. Difficulties were encountered in listening to the radio broadcasts. Study Centres are very few and ill equipped. It was suggested that more study centers and contact seminar were needed. Study material should be attractive and pedagogically sound inall respects.

V. S.Prasad (1987) examined learners' profile of APOU. The study revealed that enrolment in distance education reflects the urban and upper class bias of the university system as a whole. The proportion of the working population,industrial and agriculture workers is awfully small. Most of the learners are young or middle aged and are unemployed. Most of the beneficiaries belong to economically better families and are from urban areas. The researchers pinpointed that APOU has been able to extend educational opportunities to a very broad cross section of people.

R. G. Reddy (1987) suggested distance education system in India should be adopted due to prevailing educational inequalities across different classes and geographical regions, the deterioration in the quality of education and lack of relevance today. So distance education system should be adopted and encouraged asa different educational strategy along with conventional system. Such an approach should prove viable economically, socially, politically and pedagogically.

R. Jayagopal, (1987) highlighted the relevance of distance education system in the context of weaker sections of Indian society. In India, the complex social stratification and a large number of people below poverty line pose achallenge to the educational policy makers for providing appropriate education. The researchers suggested that non-formal programmes, supported by radio and television for the weaker sections should be considered on a priority basis.

R. Amritavalli (1987) observed that the role of educational technological gadgets should be supplementary to the traditional system so as to provide education to a large number of students. The investigator mentioned that the educational programmes which the UGC telecasts on the national TV network are not linked with the courses taken by the majority of the distance learners. Hence the utility of these telecasts as a supplement to distance learning programmes is doubtful.

R. Takwale (1987) emphasized the development of open education using distance methodology to ensure quality of education and suggested that distance education should offer relevant courses that are self- instructional and provide experimental learning and freedom to learners. The investigators viewed that distance education is essentially the outcome of modern communication technologies. The factors that led to Distance Education are- emergence of Post–Industrial society, information communication network, knowledge explosion and limitations of formal education system.

B. C. Bakliwal (1988) investigated correspondence education scheme in Rajasthan. Regarding enrolment, he found that the number of students enrolled inthe self-study programme in Rajasthan was 2325 in 1968 which increased to 30,260in 1988.

Satpathy (1989) highlighted the future expansion of Distance Education system as national and state level Open University systems, innovative practices inmeans and media used and growth of enrolment into higher education expected by the year 2001.It has been visualized that changes would occur in the organization of Distance Education functioning within the traditional university system. The study revealed that further progress of science and technology, advancement of education of weaker sections of society, increasing rate of unemployment and progress of inservice and continuing education would have significant positive

effects expansion of DE and innovations in DE systems. So the future of DE is secure for along time to come.

P. Kalvati (1991) attempted to study on foundational approach to teaching learning process in distance education at Osmania University, Hyderabad. The objectives of the study were- A) whether the use of communication technology has been helping the spread of distance education; B) whether distance education can promote universal literacy; C) whether distance education is developing vocational competence in learners ;D) whether distance education is effective alternative to formal education. The findings drawn from the study were-Distance education, like formal education has the potential to promote value based education; distance education increases the vocational competence in learners; use of communication technologies is enabling the distance education in its rapid expansion; distance education provides proper direction to the rural people in increasing their standard of living.

G. Pugazhenthi (1991) conducted a study on teacher education programme through correspondence system in Madurai Kamaraj University at the M. S.University of Boroda. The objective of the study was to examine the status and effectiveness of the teachers' education problem through the correspondence system of Madurai Kamaraj University with reference to admission policies, infrastructural facilities, student background and aspirations, lesson materials, assignment, studycentre, finance, the dissertation and personal contact programme. The researcher found that although only teacher candidates were admitted to the course initially from 1983-84 graduates as well as post graduate were also being admitted. The age of the teacher trainers ranged from 25 to 61 years.38% of the M. Ed and 49.4% ofthe B. Ed candidates belong to the rural areas. The rate of drop-outs was found to be1.7% to 4.2% at B. Ed level and 3.2% to 7.4% at M.Ed. level which were very low.

The teaching community behind expertise in the writing of scripts.72% of the B .Edand 83% of the M. Ed students found the functioning of the study centre in adequate and inefficient.

M. Das (1992) carried out a comparative study on approaches to learning and academic performances of students in traditional and open universities at J.N.U.,New Delhi. The objectives of the study were-a) to identify the relationships among learner, content and context characteristics and academic performance of students in the open and traditional universities and to find out the predictability of such approaches and b) to compare approaches to learning as well as academic performance of students in open and traditional universities. The researcher had taken IGNOU and two traditional universities as sample. The study revealed that -i)the students in the open university significantly differed from students in the traditional university in terms of the learner, content and context approaches to learning; ii) the learner ,content and context characteristics significantly correlated with the approaches to learning and academic performance of students both in open and traditional universities.

P. Vijaylakshmi(1994) attempted to study on role of distance education in empowerment of women at Osmania University. The objectives of the study area to examine the level of perception of women learners about education in generaland Distance education in particular and their need for joining Dr. B. R. Ambedkar Open University; b) to examine the extent to which the existing academic programmes of the above university are relevant to the needs, motivation and aspiration of woman clientele of urban and rural areas ;c) to identify the course and skills required by woman and their opinions about different course offered; d) toexamine the obstacles faced by the woman learners in terms of course delivery,student support services, examinations, study conditions at home and financial support for their studies. It was found that the women respondents of Dr.B.R.Ambedkar Open University were aware of the

benefits of education in general and specially for the empowerment of women. The positive perception about education among the women learners indicated their high motivation for pursuing higher education despite barriers. A majority of women opted for Open University since this had flexible admission policy and had no restriction of time and space of study. A majority of urban and rural students opined that Dr.B.R.Ambedkar Open University could have diversified the programme based on the needs of women. A majority of women learners proposed the courses including computer courses, B.Ed.course, textile designing, tailoring, nursing, secretarial courses, child care and development, interior decoration, food and nutrition, women studies beautician courses, dietitian course etc. Most women learners had joined under graduate course because degree has become a minimum respectable qualification now- a- days forwomen. There were certain institutional factors like delay in receipt of printed course material, difficulty in understanding the subject matter, irregularity of counsellors during contact programmes and distance of the study centre as some of the demotivating factors. It was also found that women learners were finding little time to study at home. They also faced lack of encouragement from family members and financial problems as other impediments.

M.D. Ushadevi (1994) investigated a study on necessity of contact sessions in distance education learners of IGNOU. The objectives of the study were –a) to examine what the distance learners feel about the necessity of contact sessions;b) to see what modes of contacts are preferred by the distance learners; c) to find out the extent of participation of distance learners in the contact sessions;d)to identify the problems experienced by learners in making use of the counselling session) to suggest measures to overcome the existing problems and thereby arrive at pointers to the future course of action. It was found that most ofthe students feel the necessity of contact sessions for clarifying doubts, breaking isolation and maintaining inter-personal relationship, gaining deeper insights and understanding

of the subject. More than 50% students expressed their dissatisfaction with the CS because of poor quality of the sessions which they find uninteresting and boring**.** The RSCs are found to be under utilised due to a variety of reasons.

H.C.S. Rathore (1995) under took an evaluative study on personal contact programmes of correspondence institutes in India. The objectives were –a) to study the aims behind organizing personal contact programmes (PCPs); b) to study the purposes served by the PCPs; c) to study the students' perceptions regarding voluntary/ compulsory participation in PCPs, suitability of the PCPs; and academic value of the PCPs. The study reported on the aims with which correspondence institutes in India organise personal contact programmes (PCPs); the purposes served by them in distance education; and (iii) the perceptions of students regarding the suitability and academic value of PCPs. The study revealed thatface-to-face teaching during PCPs is over emphasized. PCPs don't provide sufficient opportunity and time to students to discuss their academic problems. The researcher suggested that student population in distance education be distinguished as part-time and full-time students and PCPs be planned and organized separately for these two groups of students, taking into account their differing needs and expectations. Both the groups would derive optimum utility from the distance mode of education, if the PCPs are conceived and organized in a manner to meet the actual needs of learners who belong to distinctly different groups asdistance learners.

Kachroo, B.K. (1999) evaluated distance education programmes at College and University of Jammu Region. The study has certain implications for both the University of Jammu and the IGNOU (Jammu Region) for running distance education programmes. The distance education course introduced at the under graduate and post-graduate levels are hardly adequate in number keeping in view the choices of the distance learner in the Jammu region. Moreover, most of these coursesdo not cater to the needs of disadvantaged communities like Gujjars and

Bakarwals.It was suggested that certificate or diploma level courses in cattle rearing and dairy technology may be started for the benefit of the students of these communities. It was also suggested that besides Hindi or English, Urdu which is the official language of Jammu & Kashmir should also be used. In order to achieve excellence in distance education the teachers should be oriented in innovative techniques like brain storming, problem solving, project method, seminars, mastery learning strategies,formative evaluation.

Saxena (2000) conducted a study on profiles of distance learners at Indira Gandhi National Open University. The objective of the study was to gather information about IGNOU's learner, their ideas about the programme, the experience and their status after the programme. The study covered seven programmes of IGNOU from various disciplines. The findings of the study indicated that-a) there is more number of female enrolment; b) they live smaller houses with 2-3 children and 4-5 family members; c) most students belonged to lower or lower middle income group; d) most students are employed in the public sector and want only the printed text material to study; e) most of them feel that IGNOU should be an evening university; f) students want to pursue higher education from IGNOU but want new programmes like Environment and Traditional wisdom of India.

A. Pahad (2000) conducted a study on opinions of female learners regarding distance education at M. S. University of Boroda**.** The objectives of the study were a) to study the opinions of female students of Indira Gandhi Open University, Borod a Study Centre (of the year 1997-98) regarding different aspects of Distance Education; b) to study the opinions of female students regarding the selected aspects of distance education with reference to their academic achievement, interest instudies, socio-economic status of the family, occupational status of the students and c) to have the recommendations of female students for the improvement of distance education regarding the selected aspects of Baroda Study Centre. Major findings ofthe study were-a) Academic Achievement of half

of the female students was low anda less than 50% of female students were high academic achievers. A little less than 60% of female students were less interested in studies and a little more than 40% of female students were more interested in studies. A little more than half of the female students were from low socio-economic status of the family who were not employed and a little less than 50% of female students were from high socio-economic status of family and were employed; b) Overall opinion of female students was neutral towards all aspects of distance education. A high majority or female student had favourable opinion of the self- check exercises. Differences in the opinion of female students regarding the selected aspect of distance education with reference to the selected variables; c) No significant differences were found in the opinion of female students regarding selected aspects of distance education with reference to their academic achievement and their interest in studies; d) Significant differences we refound in the opinion of female students regarding library and assignments with reference to the socio- economic status of the family. There were no significant differences in the opinion of female students regarding methods and materials, support system, evaluation procedure, counseling and job prospects and expenditure incurred with reference to the socio- economic status of the family; e) There were significant differences found in the opinion of female students regarding student support system with reference to the occupational status of the student.; f) A high majority of female students strongly recommended that all assignments given by IGNOU must be made compulsory for grading.

B. Sukumar (2000) attempted to study on awareness of academic counsellors at IGNOU Regional Centre, Cochin**.** The objectives of the study were-a)To assess the extent of awareness of academic counsellors about distance education instructional concepts; and b) To ascertain the use of instructional practices by academic counsellors. The researcher found that majority academic counsellors(55%) had ambiguous idea about the difference between

correspondence anddistance education system. The study showed general lack of awareness among academic counsellors about distance education instructional concepts and learning theories. Similar trend also seems in their use of motivational techniques and audio visual media. Orientation programmes need to be conducted twice or thrice in ayear in each region with the aim of accommodating all the academic counselors.The orientation should not only take care of the subject, counseling and evaluation aspects but also how to improve their knowledge with regard to communication aspects, usage of audio-visual media, student psychology, teaching learning, etc. Also it is suggested that attendance in orientation programme should be made compulsory.

S. S. Sreekumar (2000) conducted a study on Distance Education and Human Resource Development in the Union Territory of Andaman and Nicobar Islands. The study was intended to: a) study the extent to which programmes of distance education cater to the requirements of various sections of the population in the Andaman and Nicobar Islands; b) examine how far programmes of distance education provide job enrichment professional competency; c) and study the constraints and impediments faced by learners in attaining skills through distance mode of education. The study revealed that distance education programmes help edemployed students to acquire higher qualification in their professional development.The programmes also gave opportunity to the middle aged persons and house wives to gain more knowledge and new ideas. Majority of the distance learners preferred practical-oriented courses. Majority of the learners opined that the study materials of IGNOU maintain high standard in terms of quality. It has been observed that study materials, audio lessons, video lessons and academic counseling and assignment helped in skill development. Study centres provide adequate guidance regarding various matters related to their study. The difficulties faced bylearners are- a) some learners don’t get materials and assignment questions in time; b) audio/video lessons are not accessible to many

learners; c) library facilities are not adequate in the study centers and d) lack of qualified academic counselors etc. The study recommends for improvement of various aspects such as study materials, study centers, counseling, introduction of new programmes etc.

C. Krishnan (2001) conducted a study on institutional arrangements for Distance Education at the school of Distance Education (SDE), University of Calicut(Kerala)**.** The main objectives of the study are: a) to examine the nature and characteristics of the student population in the distance stream of education ;b) to examine the pattern of enrolment in the institution; c) to examine the institutional arrangements provided in these institutions from the students perspectives; d) to suggest measures to improve the functioning of the institutions. The researcher found that the SDE, Calicut University offers various courses to meet the requirements of the learners. All the students viz., the regular and open stream students follow the same syllabus, appear for the same examination and get the same certificate.60% students enrolled in the degree level courses. Students' enrolment in professional and diploma courses are insignificant. Most of the students feel that mere supply of printed notes and a ritual of 7 or 8 days PCPs are not effective enough in getting quality education. The study materials supplied by the SDE are notfound in the self-instructional formats. Majority students considered the PCPs useful.There are no study centers for benefit of learners. Library facilities are very poor.

D. P. Sharma (2002) evaluated student teachers' perception on Teacher Education Programme of IGNOU. The aims of the study were-a) to analyse the profile of student teachers ;b)to find out the reactions of the student teachers on different components of the Bachelor of Education Programme of IGNOU; c) toelicit suggestions from student teachers for improvements in the on going Bachelor of Education Programme of IGNOU. The reactions of the student teachers are positive on all the major components of the programme except

interactions during counseling and workshops, feedback on assignments, audio-video inputs and schedules of the activities. All the respondents have suggested holding workshop/counseling sessions before the submission of assignments, holding workshop during vacations, feedback on assignments, more interactions during counseling and workshop sessions and provision of audio-video inputs. It is suggested that the counseling should be made compulsory, counseling days should be increased, counselors should be orientated to the methodology of distance education and practice teaching programme should be monitored and supervised from the programme centre.

C. Villi (2003) conducted a study on knowledge, attitude perception and expectations (KAPE) of the women learners. The study revealed that 45.1% learners are in favour of entrance examination. 18.7% felt that entrance test is easy. 25.5% expressed that Open University System is similar to the other system i.e. that they have not found any change. 30.4% felt that the days for contact class are very meager. 20.6% felt that contact classes conducted were not according to students requirements. The source of getting study information through News papers and friends is significantly larger 34% and 32.5% respectively. The main reason for choosing Open University System seems to be their ambition to get higher education. 54.6% expressed their desire for higher education as the reason for choosing Open University System. 16% felt that their less qualification leads them to join in the OUs, and 15.6% expressed their current jobs is the reasons for opting to OUs. The researcher concluded that opinions about the contact seminars indicate theare s of required improvement in the system.

R.V.Vadnerer, R.Gujar, & and A. Sonone, (2003) attempted to study on a vocational education programme through distance education mode. It was found that majority of the respondents were happy and satisfied for getting the opportunity to complete such programmes without disturbing their routine education as required in conventional system. Majority of the respondents have

appreciated the format and content of learning material. Majority of the students were found to be sincere about attending counseling sessions.

P. Narayan (2004) evaluated CLD programme of IGNOU**.**The programme has been highly effective and successful in terms of meeting its objectives. The overall effectiveness of the programme measured in quantitative terms worked out at 4.09 at five point scale. Thus, the success score of the programme in percentage terms is more than 80% and the learners have substantially been benefitted by pursuing this programme. The quality of course material in terms of its language, style, content and structure as perceived by the learners is very good.The learners belonging to different educational status did not make any change in their perception about the quality of the course material.

K. Gangapi & E. Chanraiai (2004) conducted a study on responses of learners to technology-based learning of Dr. B.R. Ambedkar Open University. The main objectives of the study were to: i) examine the role and contribution of multimedia instructional system adopted by the University. ii) study the responses of learners to technology-based teaching/learning methodologies; and iii) study the issues and concerns associated with technology based teaching-learning system and to make some useful suggestions based on the analysis of study to improve the system. It was found that majority informed that teleconferencing and television programmes were useful and interesting but they were not able to watch the programmes due to inconvenient timings and non-availability of schedule of lessons .It was suggested to improve the system and to increase access of the new technologies to the distance learners and a separate channel for tele-Iessons and teleconferencing is highly desirable with well-in- advance information to the students. They also suggested that Audio-Video Lessons are required to be revised, updated, and improved.

A.Gaba (2004) examined the role of distance education in the Human Resource Development of India. The study was conducted to examine the extent to which IGNOU programmes have helped in the development of human resources.The study revealed that that distance education helped learners to facilitate job performance, to acquire skills in their concerned life and for self-development.

M. Srivastava, J. M. Kurup & R. Nembiakkim (2007) analysed the role of distance education in general and IGNOU in North- Eastern region. They observed that there is unmet demand for education at all levels, but especially for higher education in this region. Thus the ODL system holds the promise of providing more opportunities to the people of the NE region to pursue higher education and improve their prospects. The CCIs/ DDE attached with conventional universities were set up after more than a decade of IGNOU's existence in the NER. Ascompared to IGNOU, the CCIs have a limited presence in terms of both number of programmes offered as well as students enrolled. Also the number of programmes they offer are very few as compared to IGNOU. The diversified delivery approach adopted by IGNOU since the latter half of the1990s has also contributed to the growth of students. There has been a phenomenal increase in the establishment of study centres of different type slike programme study centres, special study centres besides the Regular Study Centres in the region. The study centres provide support services such asacademic counseling, tutoring, library and information services through face to face sessions, teleconferencing, radio etc. The number of programmes offered by IGNOU has also gone up from 2 programmes in 1986 to 125 in 2006. They suggested that OUs like IGNOU and the newly established Open Universities of Assam and Nagaland including the CCIs should invest in the adoption of ICTfor providing educational opportunities to larger segments of the populations living here. Incentives should be instituted by the state governments in order to attract the youth and the unemployed to enroll in DE programmes in this region.

A. Gaba (2007) conducted a study on online Graduates and job market. The objective of the study was to know the utility of degree for learners' career path in terms of employment, promotion, continuing education and in any other area, and to study the perception related variables such as the acceptability of their degree in job market. The number of learners registered with Bachelor of Information Technology programme (BIT) through online mode has been increased from 1267 in 1999 to 1833 in 2001. But, it had declined after 2002 onwards. All the respondents were fresh learners having acquired 10+2 qualification from formal institutions before registration with BIT programmeand were unemployed. After completion of their programme from IGNOU ,27% respondents got regular job, 24.3% were doing regular job already joined postgraduation programme through distance mode in different institutions. 13.5% joined further studies and were looking for job in comparison 10.8% studying anddoing part time job and the same number of respondents was doing nothing. It was found that a majority of the respondents got job, continued further study and enhanced their skills despite facing the problem of non-acceptability at the initial stage. Most of the respondents also informed that due to this programme they acquired communication skills. 92% informed that they did not face any problems in getting job or pursuing post-graduation in different institutions. It was observed that online teaching has broken all barriers for those people who could not have access to higher education programmes.

M. H .Siddiqui (2008) undertook a comparative study of the attitude of B.Ed. male and female students of Aligarh Muslim University towards the Distance Education. It was found that –a) there was no significant difference between male and female students with regard to attitude, intelligence and achievement motivation; b) there was no significant difference in attitude of high and low intelligence level and high and low achievement of male and female B.Ed. students; c) there was no significant difference between the attitude of male and

female B. Ed. Students towards Distance Education; d) there was no significant difference amongst the attitude of male and female B.Ed. students towards distance education in relation totheir high and low intelligence level and high and low achievement motivation.

A.K. Gaba (2008) presented a paper on distance education and human resource development at the University of London .The study investigated the learners' benefits, which they received after completion of the CCDP from IGNOU. The objectives of the paper are to study-a) learners' goals to register with CCDP programme; b) learners' perception of the valued of CCDP programme study through distance mode; c)to find out the reasons, if any, for non-completion of the programme. Based on the objectives of the study, two research methods were employed in this study -Document and Database Analysis and Telephone/Email survey Method. The study revealed that most of the respondents' goal wasto get skills in pottery and to get certificate. The respondents informed that to getCCDP certificate from IGNOU was necessary to get a job and promotion in their respective institutions and it was one of the prerequisite for the job. Half of the respondents informed that the certificate helped a great deal to facilitate job performance. Most of the respondents (71%) informed that they perceived that the present certificate would help them in achieving higher education, to get a new job and a promotion in their present job. 73% informed that the course exactly met their personal needs, which motivated them to complete the programme. Rest of the students informed that other factors like professional compulsion was responsible to complete the programme. Few respondents suggested that more practical classes should be organized.

D. Harichandan (2009) examined student support services in Distance Education Institute of conventional university (Mumbai University) and open university(IGNOU).It was found that in the DEI, study materials are written by individual teachers from the constituent colleges. They have no training in

SLMs.In OU, the faculty of the University and outside experts constitutes the course team.In DEI, the submission of assignments has not been introduced whereas in OU it is compulsory. The duration of PCPs in DDI is 3 months and in OU it is 6 months in ayear. The facilities such as reference books, back of audio and video cassettes including radio are available in study centers of OU. Both the DEI and OU do not offer any pre-enrolment guidance and counseling to students.

A.K. Gaba & S. S. Sethy (2010) conducted a study on learners' perception towards Information and communication technologies. The objectives of the study were to: a) ascertain the awareness of online/distance learning programmes; b) find out which teaching delivery model is preferred by the learners most; c)examine learners' accessibility to on-line programmes; d)study learners' level of skills for study through online; and e)know the learners' preference for the support services through ICTs. It was found that majority of the respondents of all the programmes were having basic knowledge of ICT in general and computer skill in particular before registration with IGNOU with experience of internet use. Learners had giventheir preference to receive support services through Audio/Video and CDs/DVDsfollowed by Online/e-Learning/Web based programmes. Most of the learners werehaving ICT equipment. The study found that ICTs help IGNOU learners in various ways. The respondents appreciate IGNOU for its e-Gyankosh and wiki facilities. Itwas suggested that IGNOU should deliver content and other services through mobile devices.

M. Das and C.K. Ghosh (2011) conducted a study on academic counseling and need and expectations of IGNOU learners. The objectives of this study were: a) to investigate the learners' perspective of the academic counseling sessions at IGNOU;b) to identify areas of intervention to facilitate the academic counselors to build the capacities of inquiry, creativity and innovation; moral leadership; technological capabilities; and entrepreneurial skills in the learners of IGNOU. It was found that 96.2% learners said that counseling sessions were important for

their learning. About 60% said that they got the study material well in advance and the counselors tried to familiarize with the learners and many learners,65% said the counselors made an effort to know the background of the learners. About 77% learners said that the counselors listened to their study related issues,and about 68% learners said that the counselors listened to their administrative related issues and tried to solve them. About 47% said the libraries of the study centres do not have adequate collection of books. The academic counselors of IGNOU identified different areas for capacity building such as emphasis should be on given counseling sessions , 'questioning skills' rather than 'answering skills' of learners, inculcate moral and ethical values in the learner, ICT-based teaching for learners, and entrepreneurial skills etc.

R. H. Makwana (2011) discussed the role and challenges in Distance Education in India. The Government of India has taken into consideration to develop distance learning mode by encouraging open universities and DEIs across the country with a basic objective to make the masses educated. The Distance education system is an innovative component of higher education and are perceived by educational planners and policy makers as well as the community as avital instrument of human resource development and education rights. The challenges of distance education system are-a) lack of adequate teachers; b) lack of adequate staff; c) large numbers of students; d) difficulties to prepare lessons according to the individual differences of the learners; e) dearth of multi-media instruction; f) difficulties in printing materials; g) limited library facilities in the study centers; h) maintaining the quality of distance education institutions etc. Emphasis should be given on career-oriented courses, setting up of additional study centers, Radio Interactive programmes, reduction of fee structure, scholarships forlearners, Individualized Instruction, and new methods of reducing.

S. P. Nair (2012) attempted to study successful learners of IGNOU and find the learner-centric factors and OU-related factors that have facilitated the learners to

successfully complete their study. Among the factors to which the learners attribute their academic success are both learner based aspects and OU-based aspects. The important learner-based factors are learners' hard work and the support received from their immediate environment namely; family/friends/colleagues. Among the OU-based factors, the support from OUin terms of providing the sought information/ responding to queries etc. had are latively lower score than other factors. The successful learners stated that their study habit and all communications & information from the OU helped them to successfully complete their study. OU learning fosters other such valuable life skills and qualities. OUs can stress these qualities to the learners during appropriate forums such as induction meetings, website, counselling sessions etc. OUs have a responsibility to enhance their pass out rates. The researcher concluded that maximising learner satisfaction by providing excellent learner services with quick redressal/response to student grievance/problems/queries could clearly work in the long run towards enhancing pass out rates.

2.3 Studies related to distance education in Assam

Open and Distance learning is comparatively a new trend in Assam. The related literature review in this topic are discussed below.

Das ,Manoranjan(1990) conduct a study on the socio economic problems in the implementation of the adult education programme in Assam.The investigators made an in depth study to analyzed the socio-economic problems as impediments in the implementationof the Adult education programme in Assam.One of the important findings of the study as that a need based adult education for social and economic deprived would necessitate identification of homogeneous groups, assessment of educational needs in the light of the economic needs and aspirations, formulation of suitable and relevant curricula and syllabus , learning methods and appropriate tools for the teaching learning process.

Rahman(1989) made a study on some aspects of the low enrolment of the Milling tribe in the Distance Institution in Assam. The study itself to issue of enrolment and dropout and relationship between the appointment of teachers and teacher student ratio.The study revealed that poverty lack of infrastructure and literacy among parents are the main constraints for low enrolment among the tribal children.

M. Kumar (2002) investigated the status of distance education in Assam at Gauhati University**.** The objectives of the study were- a) to study the status of the open distance education and other alternative system of education in Assam; b) to study the development trend of distance education in the state of Assam **;**c)to study the function of distance education in the state of Assam; c) to study the enrolment trends, personal contact programmes, development of course materials and students support services; d) to investigate the opinion of the people i.e. distance learners regarding the alternative system of education i.e. distance education; e)to study the effectiveness of mass communication apart from printed study materials in context of Assam; f) to propose flexible and appropriate methods of education with focus on distance, open and life-long system as complementary, supplementary and additional supportive system in catering to the varied educational and vocational needs. The study revealed that the percentage of distance learners was increasing every year but rate of increase was not specific. The reasons behind joining distance education were– a) employed people could not attend regular college; b) some get less mark in previous examination; c) some had financial problems and d) some wanted to continue their education. It was also found that the study material of distance education was satisfactory. Learners agreed that the counseling session conducted to their institute was useful. Infrastructure was not in good condition. Medium of study were in favour of Assamese medium. Majority of the students were found totally dependent on their counselors.

D. Medhi (2005) conducted a study to evaluated distance education system with special reference to IGNOU and PGCS, GU at Gauhati University. The major findings of the study were-Enrolment trend shows that the percentage of distance learners is increasing every year.

66.32% students were male and 33.68% were male. IGNOU had total 35.38%of rural students where as PGCS, GU had 47.70% of rural students. Majority(52.40%) belonged to age group of 19-25 years. Most of the students (59.24%) belonged to general category.

52.40% students joined in distance education programmes because of their job, 31.89% joined as they could not get admission in regular college, 28.35% joined because of financial problems and others joined for personal problems.84.23% of IGNOU students opined that they joined in distance education programmes for time saving.

90.91% students were found satisfied with course structure of different programmes.43.04% students demanded more programmes.77.69% students of IGNOU and 54.59% students of PGCS, GU were found satisfied with their study material.58.73% students were found satisfied with students support services.78.73% students supported that distance education is more economical than formal education. It was found that only IGNOU is usingmulti-media and teleconferencing systems for education. PGCS, GU was limited to printed study material only.

Kumar, Mukhesh (2006), conducted a wide study on the status of distance education in Assam, throwing light on different aspects. The findings of his study show that the distance education system helps in upgrading the knowledge and skills of students. It provides equal opportunities to all sections of the society, irrespective of their caste, colour, language, creed and age. It acts as a best alternative to formal education for needy persons and a successful mode of

educating a mass in one time In the study , he concluded that apart from benefitting it fails in giving a required output , which is a great setback to distance education.

M. G. Borgohain (2009) conducted a study to evaluated distance education under IGNOU in Assam at Dibrugarh University.The major findings of the study were –□IGNOU has been functioning through a chain system, headquarter, regional centre and the study centres. The study centres are adequately equipped with the required staff (Co-ordinator and others, viz. Assistant Co-ordinator, office assistants, attendants, safaiwala) are appointed as per norms. It has also been functioning through some part time Academic Counselors. The study centres of IGNOU in Assam have been facing various problems in the field of administrative, academic, financial, physical and infrastructural facilities.

□In the Management programme (MP) enrolment numbers have shown a flexible trend. Enrolment scenario of the programmes MBF, CES, CRD, CHR,CWED, CLD, CAFÉ, CPLT, and DPECCP. In CIS, the enrolment figures have shown a flexible trend. In CDM, the enrolment figures were almost equal during the period 2001 to 2006. In the programme CTE and CNCC the enrolment trend shows both upward and downward.□There was substantial decline in participation (enrolment) in the distance education programmes under IGNOU among male and females. Participation of students divided on the basis of caste wise distribution also shows significant decrease. In the case of employment status also same trend is seen.

□A good number of achievers are seen in the CIC programmes.

Saikia, Dipankar (2011), had conducted a study on the role of open distance learning in Assam State. In this study, he observed that the two main factors of IDOL which have led to attract the interest of the Assamese people are the growing need for continual skills upgrading and retraining and also the

technological advances that have made it possible to teach more and more subjects at a distance.In the study he concluded that with the well utilization of information and communication technology, the records of its E-Portal users reveals the success of IDOL. In this context, with the one-way information provision, the two-way consultation relationship and active participation of the students can make the dream of digital democracy true.

Das, Prasenjit (2012) madea study on the effectiveness of Open and Distance Education. In the study, he reported that one of the challenges that are to be met is that of quality improvement and how it can be addressed through modernization, research and networking of the universities to other educational departments in the region through ICTs. He also summarized that, the universities of Assam and NE must be able to remain autonomous in bringing in their innovations, in teaching-learning through Open Educational Resource.The emphasis should also be laid on conferring autonomous status even on the colleges of Assam so that they can provide means to interact across geographical boundaries of institutions, to improve infrastructure and to start mutual collaboration and co-operation among the higher educational institutions for optimize utilization of available resources.

S. Lama & M. Kashyap (2012) emphasized the role of distance education in Assam and the potential it carries in building a huge wealth of human resources. Distance Education is an approach which supplements the higher education in Assam. The Assam government has shown its interest towards the open and distance educational scenario, to cover large number of human resources.KKHSOU is a first in this kind of university in the state and also in the entire North-east India. The efforts of this university can be seen through different vocational and professional courses. The basic objective of the university is to cover all those students who have left their education at the early stages of their life and to generate employment opportunities and promote economic growth. In

simple words it tends to increase the need of the human resource of the state. The working population can utilize the distance mode in acquiring skill and education which in turn would way help in their promoting and opt for new job opportunities for them. Distance education has potential to provide adequate human resources to country as well states growth. The DE Institutes in the state offers a wide variety of programmes that can enable the learner to be employed in a field of his/her choice. Assam is one of the states with huge potentials but the lack of human resource has resulted in stagnancy of development of the region. Hence, distance education has a definite role to play in Assam.

Table 2.1 Concise table of the literature review:

Year	Title	Author	Findings
Study related to distance education in international level			
1975	A study on the distance tutor in correspondence education.	**Harris,W.J.**	He found that 99% of the faculty worked part time with 55% handling only one course. Three fourths of the tutors were man and one tenth was retired from full time work elsewhere. Only 15% of the tutors were under age 28. 30% did not have previous teaching experience.
1975	A study on open learning systems and problems in post-secondary education at Paris, UNESCO.	**N. Mackenzie, R. Postgate and J. Seupham**	They observed that research and education have greater importance in open learning than they had in conventional.
1977	A study at the Open University in U.K. The target learners were asked about their awareness of the existence of the	**W. Perry**	The study revealed that over a period of five years (1971to 1976) in the U. K., only 64% of the total adults population had come to know about the open University.

	Open University.		
1989	A study on formative evaluation of distance education at the University of Botswana.	**J. Mutanyatta**	The researcher suggested that the University should supply extra reading materials to students, particularly for theoretical subjects.
1989	A studyto evaluate preparation of course materials for distance education courses.	**N. Venkataiah.**	The researcher concluded that A) Adequate attention must be paid to the writing of course materials. The standard or quality of instructional materials should not be sacrificed whatever might be the financial constraints B) The Course Team approach of the British Open University, though expensive, is feasible, economically viable and justified if the course material is used for a large number of students and C) In view of the large number of students for its course, this Course Team approach will be feasible, economically viable and will also ensure good –quality materials.
1999	Studied the role and	**G. Kuruba**	According to the author

	development of distance education in African countries in general and Botswana in particular.		Distance education plays a vital role in overcoming the various problems faced by the counties of Africa and development of human resources.
2000	A brief review on Costing of Open and Distance Learning.	**Hulsman, Thomas**	They concluded that Open and Learning System is cost effective compared to traditional face to face classroom system of teaching, and has the advantage of economies of scale .However,studies on costing in open and distance education in India ,especially the costing of audio video information technology, are still in its infancy.
2000	Conducteda preliminary study of current state of distance education research in India.	**Wei, Yuan Zhang and Venkaiah, V.**	The investigator regarded the study as a preliminary one, but there are also many areas in this study that needs to be improved and enriched.
2003	A study to examine theconstrains in academic learning and cognitive growth in distance institutions in comparison to the general classroom learning.	**Squandre, E**	The study's results confirm that it is vitality of the classroom that makes an impact on academic learning and intellectual growth.
2004	A study on the Quality Assurance in Distance Education: the challenges to be addressed.	**Antony, Stella and A. Gnanam**	The researchers concluded that the emergence of the new forms of education has changed the nature of distance learning and consequently the quality assessment mechanisms.
2005	Analyzed the study	**Q.M.G.Ahsa**	This study focused and

	habits of distance learners of Bangladesh Open University	**n and S.M.M.Ahmmod**	identified the type of study habits of ODL learners at BOU. Tutor attitude, frequent changes in pronounced schedules and assessment delays act as important demotivates for such learners.
2006	Conduciveness of distance learning environment of Eastern Ethiopia.	**S. Assefa**	The study revealed that there are no gender differences in perceptions of distance learners with respect to psychosocial environment, institutional support, the home environment, and the study centre environment for distancelearners.
2008	A study on the Access to Quality learning for the development as discussed in the fifth Pan Commonwealth forum on Open Learning.	**Jenkins, Jonathan**	Author has summarized that understanding and learning experience should address quality issues and improve the outputs, but it is equally necessary to understand the outcomes.
2009	The evaluation of a distance teacher education programme in a University of Ghana	**K. A. Sampo**	Author found that the distance teacher education programme of the Centre for Continuing Education of the University of Cape Coast (CCEUCC) is fulfilling its purpose of upgrading the academic and professional competence of a large number of teachers in the basic schools in Ghana, raising their performance level and

			equipping them with skills for lifelong learning.
2010	The role of Open and Distance Learning inthe attainment of United Nations Millennium Development Goals (MDGs) in Cross River State of Nigeria.	**R. E.Taow et al.**	The main focus of the study was to access the overall viewsof Open and Distance Learning students (ODL) on the adequacy of Correspondence Education Programme (CEP); Radio and Television Education Programme (RTEP);and Internet-Based Education Programme (IBEP) methods in the attainment of United Nations Millennium Development Goals and education for all in Cross RiverState of Nigeria.
2011	A study on quality assurance in distance education achieved in the Philippines.	**N.K. Jamandre**	This paper is an attempt to analyze andsynthesize the developments and challenges of the University of the Philippines Open University (UPOU) which offers the Distance Education (DE) Program since1995.
2012	A study to compare student satisfaction level in distance learning and live classroom at higher education level in Pakistan .	**A. Mahmood , S.T.Mahmood & A.B.Malik**	It was found that students both from distance learning and traditional classroom showed a high level of satisfaction.
2013	Astudy on learners' reflection and skills of distance education tutors in Pakistan.	**I. Hussain**	The researcher found that the overall reflection of distance learners and skills of their tutors was positive.
Study related to distance education in India:			
1976	The growth of	**R. Dutt**	The study revealed the

	correspondence courses in India.		enrolment trend of correspondence courses from 1971 to1976 taking into consideration the nature of courses, annual compound rate of enrolment and level of courses. He found that all the institutes had the provision for personal contact programme.
1979	A study on correspondence education in Indian Universities at M.S. University, Baroda.	**B.N. Biswal**	The study revealed that the objectives of correspondence courses offered through different universities remained almost same all over the country
1981	A study on correspondence education programme of the Patrachar Vidyalaya at the Centre for Educational Technology,NCERT, New Delhi.	**J. Singh**	He found that students in the two correspondence courses were spread over a wide range of age levels of 15 years to 37 years. About11% and 19% of the boys and girls respectively were married. Quite a few students belonged to rather low socio-economic status. By and large, the students found the lesson materials interesting and easy to understand.
1983	An attempt to evaluate learning support systems ofthe distance education programme of Madurai Kamaraj	**G. Mani**	The study revealed teachers lacked skills such as mastery of subject matter and effective communication, efficiency in clearing doubts, skill in motivating adults, use of various teaching methods

	University.		and proper modulation / pronunciation / accent etc. Difficulties were encountered in listening to the radio broadcasts. Study Centres arevery few and ill equipped.
1987	Learners' profile of APOU. The study revealed that enrolment in distance education reflects the urban and upper class biasof the university system as a whole.	**V. S.Prasad**	The researchers pinpointed that APOU has been able to extend educational opportunities to a very broad cross section of people.
1987	A Study on distance education system in India shouldbe adopted due to prevailing educational inequalities across different classes	**R. G. Reddy**	Distance education system should be adopted and encouraged asa different educational strategy along with conventional system.
1987	The Relevance of distance educationsystem in the context of weaker sections of Indian society	**R. Jayagopal,**	The complexsocial stratification and a large number of people below poverty line pose achallenge to the educational policy makers for providing appropriate education.
1987	The role of educational technological gadgets should be supplementary to the traditional system so as to provide educationto a large number of students.	**R. Amritavalli**	The investigator mentioned that the educational programmes which the UGC telecasts on the national TV network are not linked with the courses taken by the majority of the distance learners.

1987	The development of open education usingdistance methodology to ensure quality of education and suggested that distance education should offer relevant courses that are self-instructional and provide experimental learning and freedom to learners.	**R. Takwale**	The investigators viewed that distance education is essentially the outcome of modern communication technologies.
1988	Correspondence education scheme in Rajasthan.	**B. C. Bakliwal**	Athuor found that the number of students enrolled inthe self-study programme in Rajasthan was 2325 in 1968 which increased to 30,260in 1988.
1989	The future expansion of Distance Education system as national and state level Open University systems,	**Satpathy**	The study revealed that further progress of science and technology, advancement of education of weaker sections of society, increasing rate of unemployment and progress of in service and continuing education would have significant positive effects expansion of DE and innovations in DE systems.
1991	A Study on foundational approach to teaching learning process in distance	**P. Kalvati**	The findings drawn from the study were-Distance education, like formal education has the potential to promote value based education;

	education at Osmania University, Hyderabad		distance education increases the vocational competence in learners; use of communication technologies is enabling the distance education in its rapid expansion; distance education provides proper direction to the rural people in increasing their standard ofliving.
1991	A study on teacher education programme through correspondence system in Madurai Kamaraj University at the M. S.University of Boroda.	**G. Pugazhenthi**	The researcher found that although only teacher candidates were admitted to the course initially from 1983-84 graduates as well as post graduate were also being admitted. The age of the teacher trainers ranged from 25 to 61 years.38% of the M. Ed and 49.4% ofthe B. Ed candidates belong to the rural areas. The rate of drop-outs was found to be1.7% to 4.2% at B. Ed level and 3.2% to 7.4% at M.Ed. level which were very low.
1992	A comparative study on approaches to learning and academic performances of students in traditional and open universities at J.N.U.,	**M. Das**	The study revealed that –I) the students in the open university significantly differed from students in the traditional university in terms of the learner, content and context approaches to learning; ii) the learner ,content and context characteristics significantly correlated with the approaches

			to learning and academic performance of students both in openand traditional universities.
1994	A study on role of distance educationin empowerment of women at Osmania University.	**P. Vijaylakshmi**	It was found that the women respondents of Dr.B.R.Ambedkar Open University were aware of the benefits of education in general and specially for the empowerment of women. The positive perception about education among the women learners indicated their high motivation for pursuing higher education despite barriers. A majority of women opted for Open University sincethis had flexible admission policy and had no restriction of time and space of study.
1994	A study on necessity of contact sessionsin distance education learners of IGNOU.	**M.D. Ushadevi**	It was found that most ofthe students feel the necessity of contact sessions for clarifying doubts, breakingisolation and maintaining inter-personal relationship, gaining deeper insights andunderstanding of the subject. More than 50% students expressed their dissatisfaction with the CS because of poor quality of the sessions which they finduninteresting and boring**.**
1995	An evaluative study on personal contactprogrammes of correspondence	**H.C.S. Rathore**	The study reported on the aims with which correspondenceinstitutes in India organise personal contact

	institutes in India.		programmes (PCPs); the purpose sserved by them in distance education; and (iii) the perceptions of student sregarding the suitability and academic value of PCPs. The study revealed thatface-to-face teaching during PCPs is over emphasized. PCPs don't provide sufficient opportunity and time to students to discuss their academic problems.
1999	Distance education programmes at College and University of Jammu Region.	**Kachroo, B.K.**	The study has certain implications for both the University of Jammu and the IGNOU (Jammu Region) for running distance education programmes. The distance education course introduced at the undergraduate and post-graduate levels are hardly adequate in number keeping in view the choices of the distance learner in the Jammu region. Moreover, most of these courses do not cater to the needs of disadvantaged communities like Gujjars and Bakarwals.
2000	A study on profiles of distance learners at Indira Gandhi National Open University.	**Saxena**	The findings of the study indicated that-a) there is more number of female enrolment; b) they live smaller houses with 2-3 children and 4-5 family members; c)most students belonged to lower or lower middle income group; d)

			most students are employed in the public sector and wantonly the printed text material to study; e) most of them feel that IGNOU should be anevening university; f) students want to pursue higher education from IGNOU butwant new programmes like Environment and Traditional wisdom of India.
2000	A study on opinions of female learners regarding distance education at M. S. University of Boroda	**A. Pahad**	Major findings of the study were-a) Academic Achievement of half of the female students was low anda less than 50% of female students were high academic achievers. A little less than60% of female students were less interested in studies and a little more than 40% of female students were more interested in studies. A little more than half of the female students were from low socio-economic status of the family who were not employedand a little less than 50% of female students were from high socio-economic statusof family and were employed; b) Overall opinion of female students was neutral towards all aspects of distance education. A high majority or female student had

			favourable opinion of the self-check exercises. Differences in the opinion of female students regarding the selected aspect of distance education with reference to the selected variables; c) No significant differences were found in the opinion of female students regarding selected aspects of distance education with reference to their academic achievement and their interest in studies; d) Significant differences were found in the opinion of female students regarding library and assignments with reference to the socio- economic status of the family. There were no significant differences in the opinion of female students regarding methods and materials,support system, evaluation procedure, counseling and job prospects and expenditure incurred with reference to the socio-economic status of the family; e) There were significant differences found in the opinion of female students regarding student support system with reference to the occupational status of the student.; f) A highmajority of female students strongly recommended that all assignments given byIGNOU must be made compulsory for grading.

2000	A Study on awareness of academic counsellors at IGNOU Regional Centre, Cochin**.**	**B. Sukumar**	The researcher found that majority academic counsellors(55%) had ambiguous idea about the difference between correspondence anddistance education system.
2000	A study on Distance Education and Human Resource Development in the Union Territory of Andaman and Nicobar Islands.	**S. S. Sreekumar**	The study revealed that distance education programmes helped employed students to acquire higher qualification in their professional development.
2001	A study on institutional arrangements for Distance Education at the school of Distance Education (SDE), University of Calicut(Kerala)**.**	**C. Krishnan**	The researcher found that the SDE, Calicut University offers various courses to meet the requirements of the learners. All the students viz., the regular and open stream students follow the same syllabus, appear for the same examination and get the same certificate.60% students enrolled in the degree level courses.
2002	Student teachers' perception on Teacher Education Programme of IGNOU.	**D. P. Sharma**	The reactions of the student teachers are positive on all the major components of the programme except interactions during counseling and workshops, feedback on assignments, audio-video inputs and schedules of the activities.
2003	A study on knowledge, attitude perception and expectations (KAPE) of the	**C. Villi**	The study revealed that 45.1% learners are in favour of entrance examination. 18.7% felt that entrance test is easy. 25.5%expressed that Open

	women learners.		University System is similar to the other system i.e. thatthey have not found any change. 30.4% felt that the days for contact class are very meager. 20.6% felt that contact classes conducted were not according to students requirements.
2003	A Study ona vocational education programme through distance education mode.	**R.V.Vadnerer, R.Gujar, & and A. Sonone,**	It was found that majority of the respondents were happy and satisfied for getting the opportunity to complete such programmes without disturbing their routine education as requiredin conventional system.
2004	Evaluated CLD programme of IGNOU	**P. Narayan**	the success score of the programme in percentage terms is more than 80% and the learners have substantially been benefitted by pursuing this programme.
2004	A study on responses of learners to technology-based learning of Dr. B.R. Ambedkar Open University.	**K. Gangapi & E. Chanraiai**	It was found that majority informed that teleconferencing and television programmes were useful and interesting but they were not able to watch the programmes due to inconvenient timings and non-availability of schedule of lessons
2004	The role of distance education in the Human Resource Development of India.	**A.Gaba**	The study revealed that that distance education helped learners to facilitate job performance, to acquire skills in their concerned life and for self-development
2007	The role ofdistance education in general and IGNOU in North- Eastern	**M. Srivastava, J. M. Kurup & R.**	They observed that there is unmet demand for education at all levels, but especially for higher education in this region.

	region.	**Nembiakkim**	Thus the ODL system holds the promise of providing more opportunities to the people of the NE region to pursue higher education and improve their prospects.
2007	A study on online Graduates and job market.	**A. Gaba**	. It was found that a majority of the respondents got job, continued further study and enhanced their skills despite facing the problem of non-acceptability at the initial stage.
2008	A comparative study of the attitude of B.Ed. male and female students of Aligarh Muslim University towards the Distance Education.	**M. H .Siddiqui**	It was found that –a) there was no significant difference between male and female students with regard to attitude, intelligence and achievement motivation;b) there was no significant difference in attitude of high and low intelligence leveland high and low achievement of male and female B.Ed. students; c) there was no significant difference between the attitude of male and female B. Ed. Students towards Distance Education; d) there was no significant difference amongst theattitude of male

			and female B.Ed. students towards distance education in relation totheir high and low intelligence level and high and low achievement motivation.
2008	A paper on distance education and human resource development at the University of London	**A.K. Gaba**	The study revealed that most of the respondents' goal wasto get skills in pottery and to get certificate.
2009	The student support services in Distance Education Institute of conventional university (Mumbai University) and openuniversity (IGNOU).	**D. Harichandan**	It was found that in the DEI, study materials are written by individual teachers from the constituent colleges.
2010	A study on learners' perception towards Information and communication technologies.	**A.K. Gaba & S. S. Sethy**	It was found that majority of the respondents of all the programmes were having basic knowledge of ICT in general and computer skill in particular rbefore registration with IGNOU with experience of internet use.
2011	A study on academiccounseling and need and expectations of IGNOU learners.	**M. Das and C.K. Ghosh**	It was found that 96.2% learners said that counseling sessions wereimportant for their learning. About 60% said

			that they got the study material well inadvance and the counselors tried to familiarize with the learners and many learners,65% said the counselors made an effort to know the background of the learners.About 77% learners said that the counselors listened to their study related issues,and about 68% learners said that the counselors listened to their administrative related issues and tried to solve them. About 47% said the libraries of the studycentres do not have adequate collection of books.
2011	Discussed the role and challenges in Distance Education in India.	**R. H. Makwana**	Emphasis should be given on career-oriented courses, setting up of additional studycenters, Radio Interactive programmes, reduction of fee structure, scholarships forlearners, Individualized Instruction, and new methods of reducing.
2012	Study successful learners of IGNOU	**S. P. Nair**	The researcher concluded that

	andfind the learner-centric factors and OU-related factors that have facilitated the learners to successfully complete their study.		maximising learner satisfaction by providing excellent learner services with quick redressal/response to student grievance/problems/queriescou ld clearly work in the long run towards enhancing pass out rates.
Studies related to distance education in Assam			
1990	A study on the socio economic problems in the implementation of the adult education programme in Assam.	**Das ,Manoranjan**	the important findings of the study as that a need based adult education for social and economic deprived would necessitate identification of homogeneous groups, assessment of educational needs in the light of the economic needs and aspirations, formulation of suitable and relevant curricula and syllabus , learning methods and appropriate tools for the teaching learning process.
1989	A study on some aspects of the low	**Rahman**	The study revealed that

	enrolment of the Milling tribe in the Distance Institution in Assam.		poverty lack of infrastructure and literacy among parents are the main constraints for low enrolment among the tribal children.
2002	Investigated the status of distance education in Assam atGauhati University**.**	**M. Kumar**	The study revealed that the percentage of distance learners was increasing every year butrate of increase was not specific.
2005	A study to evaluated distance education system with special reference to IGNOU and PGCS, GU at Gauhati University.	**D. Medhi**	The major findings of the study were-□Enrolment trend shows that the percentage of distance learners is increasing every year. □66.32% students were male and 33.68% were male. IGNOU had total 35.38%of rural students where as PGCS, GU had 47.70% of rural students. Majority(52.40%) belonged to age group of 19-25 years. Most of the students(59.24%) belonged to general category. □52.40% students joined in distance education

			programmes because of theirjob, 31.89% joined as they could not get admission in regular college, 28.35%joined because of financial problems and others joined for personal problems.84.23% of IGNOU students opined that they joined in distance educationprogrammes for time saving. □90.91% students were found satisfied with course structure of different programmes.43.04% students demanded more programmes.77.69% studentsof IGNOU and 54.59% students of PGCS, GU were found satisfied with theirstudy material.58.73% students were found satisfied with students support services.78.73% students supported that distance education is more economical than formal education. It was

			found that only IGNOU is using multi-media and teleconferencing systems for education. PGCS, GU waslimited to printed study material only.
2006	A wide study on the status of distance education in Assam, throwing light on different aspects.	**Kumar, Mukhesh**	The findings of his study show that the distance education system helps in upgrading the knowledge and skills of students.
2009	A study to evaluated distance education under IGNOU inAssam at Dibrugarh University.	**M. G. Borgohain**	The major findings of the study were –□IGNOU has been functioning through a chain system, headquarter, regional centre and the study centres. The study centres are adequately equipped withthe required staff (Co-ordinator and others, viz. Assistant Co-ordinator, office assistants, attendants, safaiwala) are appointed as per norms. It has also been functioning through some part time Academic Counselors.

2011	A study on the role of open distance learning in Assam State	**Saikia, Dipankar**	Author observed that the two main factors of IDOL which have led to attract the interest of the Assamese people are the growing need for continual skills upgrading and retraining and also the technological advances that have made it possible to teach more and more subjects at a distance.
2012	A study on the effectiveness of Open and Distance Education.	**Das, Prasenjit**	Author reported that one of the challenges that are to be met is that of quality improvement and how it can be addressed through modernization, research and networking of the universities to other educational departments in the region through ICTs.
2012	The role of distance educationin Assam and the potential it carries in building a huge wealth of human resources.	**S. Lama & M. Kashyap**	The working population can utilize the distance mode in acquiring skill andeducation which in turn would way help in their promoting and opt for newjob opportunities for them. Distance education has potential to provide adequate

			humanresources to country as well states growth.

2.4 Trend analysis of the reviewed studies

Research in Distance Education is emerging since later years of 1960s.With the beginning of the British Open University in 1969, a more serious and systematic attempt to study the components of Distance Education started which helped to improve the distance teaching –learning process. Quite a good number of studies have been conducted on Distance Education system at international, national and state level. In India, Distance Education is a post-independence phenomenon. Systematic research in Distance Education started in the second half of the 20th century. The field of distance education is relatively young in the 1970s and 1980s; the qualitative research methods have gained more prominence over the quantitative that were popular in the 1960s and early 1970s.From the above discussion and interpretation of review of literature, it is observed that the educationists and researchers have given due consideration to various aspects of Distance Education. The trend analysis of the reviewed studies is as follows.

1970-1980: The researchers in this period conducted a good number of studies on correspondence education and open learning systems. The studies conducted in outside India revealed that the researchers gave more importance on research in open learning system. They found that most of the distance tutors have previous teaching experience and worked as part time faculty in the correspondence institution. Awareness of the learners regarding the existence of Open University has increased gradually. In India, most of studies are concerned with enrolment, nature of coursesand developmental growth of correspondence education system. It was found that enrolment trend was higher in Arts and Commerce.

1980-1990: In this period, the researchers conducted study on evaluation of distance education programmes, preparation of course materials, correspondence education programme, learner support system, learners' profile, relevance of distance education system in Indian context, role of educational technology in distance education system, and future expansion of distance education. The researchers suggested that the Open University should supply extra reading materials to learners; adequate attention must be paid to the writing of course materials; more study centers and contact seminar were needed; study material should be attractive. Since Distance Education system has been able to extend educational opportunities to a very broad cross section of people, so it should be adopted and encouraged as a different educational strategy along with conventional system in Indian context. The role of educational technological gadgets should be supplementary to the traditional system so as to provide education to a large number of students. They felt that the future of DE is secure for a long time to come.

1990-2000: In this period, studies were conducted in diverse aspects of distance education system such as effectiveness of distance education programme, teacher education programme through correspondence system, success in the distance learning system in relation to some variables, comparative study of students in traditional and open university, role of distance education in empowerment of women, necessity of contact sessions/PCPs in distance education, evaluation of distance education programmes, IGNOU Graduates and job market, distance education system with special reference to IGNOU and PGCS, GU etc. Outside India, the researcher found that Distance Education plays a vital role in development of human resources. The researcher found that Distance Education increases the vocational competence in learners; provides proper direction to the rural people in increasing their standard of living; the functioning of the study centers were inadequate and inefficient; the students in the Open University

significantly differed from students in the traditional university in terms of the learner, content and context approaches to learning ; the women learners are highly motivated towards distance education programmes. It was also found that most of the students felt the necessity of contact sessions/ for clarifying doubts, breaking isolation and maintaining inter-personal relationship, gaining deeper insights and understanding of the subject. It was found that the IGNOU degree not only helped the respondents for continuing education, getting regular job but also for the self-employment purposes. IGNOU is using multi-media and teleconferencing systems for education and PGCS, GU was limited to printed study material only.

2000-2010: During this period, studies conducted outside India were study habits of distance learners, conduciveness of distance learning environment, evaluation of a distance teacher education programme and role of Open and Distance Learning in the attainment of United Nations MDGs. In India, the researchers paid emphasis on learners profiles of IGNOU, opinions of female learners regarding distance education, awareness of academic counselors, Distance Education and Human Resource Development, institutional arrangements for Distance Education, student teachers' perception on Teacher Education Programme of IGNOU, knowledge, attitude perception and expectations (KAPE) of the women learners of Open University, vocational education programme through distance education mode, evaluation of CLD programme of IGNOU, responses of learners to technology based learning in ODL, utility of IGNOU degree in job market, the role of distance education in general and IGNOU in North- Eastern region, comparative study of the attitude of B. Ed. male and female students towards Distance Education, comparative study of student support services in Distance Education Institute of conventional university and open university, status of distance education in Assam and distance education under IGNOU in Assam. The researchers suggested that open universities should

develop the system for improving the study habits of the existing learners, attendance in orientation programme should be made compulsory. The researchers found that perceptions of distance learners with respect to psychosocial environment, institutional support, the home environment are not different; distance education programmes helped employed students to acquire higher qualification in their professional development; most of the learners preferred practical-oriented courses; study materials, audio lessons, video lessons and academic counseling and assignment helped in skill development ; the ODL system holds the promise of providing more opportunities to the people of the NE region to pursue higher education and improve their prospects. In Assam, the percentage of distance learners was increasing every year but rate of increase was not specific.

After 2010: In this period, the researchers laid emphasis on needs assessment in Open and Distance Learning, quality assurance in distance education, student satisfaction level in distance learning and live classroom at higher education level, conceptual model for human resource development, learners' reflection on andragogical skills of distance education tutors etc. It was found that Management and IT programmes technical/vocational and professional type courses were required for on-the-job improvement; students both from distance learning and traditional classroom showed a high level of satisfaction towards distance education system. The researcher suggested that if all the components of distance education are properly implemented and administered, it will lead to creation and expansion of knowledge, positive attitude and satisfaction, personal, social and technical skills, and behavioral change in students. In India, studies were conducted on learners' perception towards information and communication technologies, academic counseling and need and expectations of IGNOU Learners, role and challenges in Distance Education in India, successful learners of IGNOU, the role of distance education in Assam etc. It was found that learners had given their

preference to receive support services through audio/video and CDs/DVDs followed by online/elearning/web based programmes. The researchers suggested that emphasis should be given on career-oriented courses, setting up of additional study centers, Radio Interactive programmes and new methods of teaching in order to increase pass outrates among distance learners. The findings of different studies that have been reviewed above have given the investigator a scope for conducting the present work. The above reviewed studies have helped the investigator in formulation of objectives of the present work, construction of tools for collection of data and analysis of data.

2.5 Research Gap

Indian research in education began in 1943 that is more than eighteen years before the distance education programme in the form of correspondence education began in 1962. On the basis of the analysis of the studies in the various areas as evident from the review earlier, there are concentrations on certain areas in abroad, India and Assam as the Distance Education Institutions faces the challenges of quality assurance in their study center and support service systems. Teachers training education programmes play an essential role in distance learning and in the proper planning and effectiveness of open and Distance education.The children of the backward areas due to poverty, lack of infrastructure, illiteracy of the parents fail to enroll their names in the educational institutions.Although several studies relating to Distance Education has been conducted in different parts of the country,a study in respect of the research problem undertaken by the investigator has not been made by any earlier researcher in North East Region. As such we expect that our investigation to the problem undertaken will add something new to the works already done on the various development programme.

CHAPTER – III

3.1 Introduction : In order to fulfill the research gap as discuss in the chapter II, this chapter is aimed at presenting the detail objectives and research designed.

3.2 Objectives of the study

The Objectives of the present study are mentioned as follows-

1. To study the quality of conventional vis-à-vis open and distance learning mode of education system.

1. To study the reasons for joining conventional/open and distance learning mode of education

2. To study the effectiveness of study materials/text book of conventional vis-à-vis open and distance learning mode of education

3. To study the usefulness of ICT in the conventional as well as distance education.

4. To find out the cost effectiveness of existing B.Com, BBA, and BCA courses in conventional and open and distance learning system in the study area.

3.3 Hypotheses

The following hypotheses have been formulated for the present study.

A. From learners point of view :

H1: There is no significant difference between the qualities of the structure of course in Conventional / ODL mode of education system.

H2: There is no significant difference between Conventional / ODL mode of education system in case of the quality of support given by the teachers/counselors.

H3: There is no significant difference between the qualities of teacher/counselors in Conventional/ODL mode of education system.

H4: In case of the quality of learning experiences there is no significant difference in Conventional/ODL mode of education system.

H5: There is no significant difference between the comparative views in Conventional/ODL mode of education system.

H6: There is no significant difference between Conventional/ODL mode of education system in comparative view in case of examination system.

H7: There is no significant difference between Conventional/ODL mode of education system in case of learner's attitude towards the quality of Conventional/ ODL system of education .

H8: There is no significant difference in case of the reasons of joining to Conventional/ ODL system of education.

H9: There is no significant difference in the effectiveness of study materials / text book between ODL and conventional mode of education system.

H10: In the usefulness of ICT,there is no significant difference between conventional /ODL mode of education system.

H11: There is no significant difference between Conventional/ODL mode of education system in case of cost effectiveness.

B. From Teachers/Counselors point of view :

H1: In case of comparative view there is no significant difference between Conventional/ODL mode of education system.

H2: There is no significant difference in case of comparative view in connection to the examination system in Conventional/ODLmode of education system.

H3: There is no significant difference between Conventional/ODL mode of education system in case of effectiveness of study materials / text book.

H4: In case of the usefulness of ICT there is no significant difference between Conventional / ODL mode of education system.

3.4 Method of Study

This study is an empirical one based on primary survey. The Descriptive statistical tools are used for the analysis of data. T test has applied to show the significance difference between the two groups of independent variables and the correlation has applied to show the strength of relationship between variables. SPSS 16.0 has applied for analysis of data.

3.5 Sources of data

In this study the primary as well as secondary data are used. The primary data has been collected by administering questionnaires from the Centre-in-charge/coordinator, learners, and counselors/teachers of the distance and conventional study centres/colleges. Apart from these, secondary data has been collected to supplement the study from various publishing sources relating to the concerned subjects like reports of various Universities of conventional as well as distance education, Economic Survey Reports, IDOL's Reports, KKHSOU's report, Report of Educational Research, Journals,websites etc.

3.6 Method of Primary data collection

Primary data has been collected by visiting 18 colleges / study centers under Guwahati University, Dibrugarh University, Assam University and Krishna Kanta Handiqui State Open Universityin the different District head quarters of Assam. Taking appointment from the co-ordinators of each of the study centre, arrangement were made to meet the distance as well as the conventional learners and the teachers/counselors, Centre-in-charge of the respective study centres/colleges. All the data collected from the above mentioned sources have helped in the successful complication of the study without any treats to duplication or biasedness to complete the study.

3.7 Sample Design

3.7.1 Population

All the provincialized colleges of Assam (till Dec 2012)and the study centre of K. K. Handiqui State Open University are the population of the present study. At present (December 2012) 189 Numbers of provincialized colleges throughout the State under Gauhati University, Dibrugarh University, and Assam University and 300 numbers of study center under KKHSOU.

The teachers/counselors and learners of under graduate courses BCA, BBA and BCOM has the Population of the present study.

Table 3.1: Tabular representations of various numbers of Provincialized Colleges of Assam and study centres under KKHSOU are as follows.

Number of provincialized colleges under conventional mode University of Assam				Number of study center under distance mode University of Assam	
GU	DU	AU	Total	KKHSOU	Total
101	74	14	189	300	300

3.7.2 Sample Size

On the basis of non-probability sampling out of the total learners of conventional and ODL mode, 400 students from conventional mode (from GU 150, DU 150 and AU 100) and 400 from distance mode (from KKHSOU) has taken as sample from various select under graduate BBA,BCA and B.COM courses and 250 teachers/counselors from conventional and 250 teachers/counsellors from ODL mode (from GU, DU, AU and KKHSOU) has been selected as sample.

Table 3.2 Sample size of respondents selected for the study.

UNIVERSITY		No of Students / Learners	Teachers/ Counselors	Grand Total
Conventional Mode	GU	150	250	
	DU	150		
	AU	100		
Distance Mode	KKHSU	400	250	
		800	500	1300

3.7.3 Sample Technique

In the present study four Universities has been considered on the basis of providing both the courses of distance education and conventional education in Assam. Out of these four Universities, three Universities are providing conventional education and one University providing distance education in Assam. On the basis of judgment sampling, three conventional Universities which has selected namely – Gauhati University, Dibrugarh University and Assam University and for distance education one University which has selected namely KKHSOU, the only State Open University of Assam. Under the three conventional Universities, there are 189 Provincialized colleges in Assam (GU-101, DU-74, AU-14) out of this 189 provincialized colleges , 150 colleges has the

study centres of KKHSOU and only 74 colleges/study centers providing BCOM, BBA and BCA courses. Out of 74 colleges, 18 colleges(i.e. 24.23%) has selected geographically for drawing sample size for the study.

Table 3.3: Tabular presentation of the sample selected for study-

Name of conventional mode University selected as sample	Name of provincialized colleges of Assam selected as sample.	Name of distance mode University selected as sample	Name of study Centre under KKHSOU selected as sample.
Gauhati University	Dispur College	KKHSOU	Dispur College
	KarmashreeHiteswar Saikia College.		KarmashreeHiteswarsaikia College.
	Beltola College		Beltola College
	Paschim Guwahati College		Paschim Guwahati College
	Pragjyotish College		Pragjyotish College
	S.B.Deora College		S.B.Deora College
	Kaliabor College		Kaliabor College
	Nalbari Commerce College		Nalbari Commerce College
	Chhaygaon College		Chhaygaon College
	Nowgong College		Nowgong College
Dibrugarh University	Cinamara College		Cinamara College
	D.H.S.K Commerce College		D.H.S.K Commerce College
	J.B. College		J.B. College
	Golaghat Commerce College		GolaghatCommerce College
	D. R. College		D. R. College
	Kokajan College		Kokajan College
Assam University			
	Cachar College		Cachar College
	RK Nagar College		RK Nagar College

3.8 Tools of Data Collection

The interview schedule for the study consisted of

(a) Interview schedule for Learners/ Students of Conventional / ODL mode have been prepared with question items throwing light on various aspects of learners' cost effectiveness and quality of distance education.

(b) Interview schedule for teachers/counselors of conventional/ODL mode have been prepared with a number of question items evaluating their opinion regarding the learners' cost effectiveness and quality in distance education under selected under graduate courses in Assam.

The first schedule consist of various aspects of cost incurred for study, quality of the structure of the course, reasons for joining the course, quality of support given by the teacher/counselor, quality of teacher/counselors, effectiveness of text book/SLM, comparative view of various aspects, quality of learning experience, students behavior and attitude towards the use of technology under open and distance education system and conventional system etc. All these aspects have questions to be marked in five likert scale with options as Excellent, Very Good, Good, Average, and Unsatisfactory with grading point 5, 4, 3, 2 and 1 respectively. This schedule is to be filled up by the learners of distance education and students of conventional education system from the selected colleges and study centers providing under graduate courses of conventional and distance education in Assam.

The 2nd interview schedule consists of effectiveness of study materials/text books, quality of the structure of the course, use of information and communication technique in teaching process, comparative view of the various factors to run the under graduate courses. All these aspects have some questions to be marked in

five likert scale as Excellent, Very Good, Good, Average, Unsatisfactory with grading points 5, 4, 3, 2, 1 respectively. This schedule is to be filled up by teachers/counselors of ODL and conventional mode of education system.

3.9 Classification and Tabulation of Data

Data so collected are classified and tabulated on the basis of respondents of conventional as well as distance mode using five point likert scale as excellent, very good, good, average and unsatisfactory with the grading point as 5,4,3,2,1 respectively.

Data so classified and tabulated are interpreted by application of certain statistical techniques like t-test, co-relation and descriptive statistics.

3.10 Parameters used

The questionnaires has constructed by the researcher collected from different studies has used to meet the research questions.

1. To measure the quality of the structure of the courses from learners point of view.

    - ✓ Clear learning goal
    - ✓ Realistic learning goals
    - ✓ Comprehensive analysis of cognitive fields
    - ✓ Includes recent literature
    - ✓ Adequately connected to relating fields
    - ✓ Interesting subordinate subjects

- ✓ Helps skills development
- ✓ Caters for a holistic development of the field
- ✓ Content - goal relation

2. To measure the quality of the support given by the teachers/counselors from learners point of view.

    - Teachers/Counselors encouraged my participation
    - Eager to help
    - Teachers/Counselors guided me to the comprehension of the learning material
    - Teachers/Counselors was available to instruct
    - Teachers/Counselors watched my progress
    - Teachers/Counselors offered feedback with a view to improvement
    - Teachers/Counselors reinforced the group dynamics
    - Teachers/Counselors realized the difficulties and helped me out

3. To measure the quality of the teachers /counselors from learners point of view.

    - Scientific background

- Emphasis on analytical thinking
- Teaching capability
- Instructional thoroughness of the learning material
- Ability to communicate knowledge

4. To measure the quality of the learning experience from learners from point of view.

    - Conception from SLM/text book
    - Benefit from Assignment
    - Support provided by the teachers/advisors
    - Teacher/ Counselor quality

5. For comparative view in conventional/ODL system of education from learners and teachers/counselors point of view.

    - Programme is effective
    - Economy / Cost effective
    - Useful in Understanding
    - Acquisition of More Knowledge
    - Organized Approaches
    - Easy access to Communication

- ❖ Effective use of information and communication technology
- ❖ Effective SLM(print/audio-visual)
- ❖ Effective student support services
- ❖ Timely holding of Seminar/Workshop
- ❖ Adequate and effective counseling session/class
- ❖ Good Governance

6. For comparative view in conventional/ODL system of education in respect of examination.
    - Effective examination System
    - Timely holding of examination
    - Timely declaration of results
    - Transparent examination system
7. To find out the reasons for joining Conventional/ODL mode of education.
    - Economic.
    - No-age bar
    - Give quality education
    - Procedural delay

- Counseling /class not compulsory
- Provide exam oriented education
- Systematic regular study
- Chances to get good job through campus interview
- Provide opportunity for Extra-curricular activities
- Easy to get admission
- Provide learning opportunity while you earn
- Provide excellent study materials and other support services
- Offer valid degree
- Self-learning is innovative and creative
- Flexibility of time
- Non –availability of courses

8. To study the effectiveness of study materials /text book of conventional/ODL mode of education from learners and teachers/counselors point of view.

   - User Friendly
   - Real life situation analysis
   - Interactive

- Self-Instructional
- Easy and lucid language

9. To study the usefulness of ICT in the study area from learners and counselors/teachers point of view.

    - ❖ Learning through the Internet/website
    - ❖ Learning through sms/radio /television
    - ❖ Learning through phone in programme
    - ❖ Learning through Toll free phone service
    - ❖ Supplementary learning material in video tapes

10. To find the cost effectiveness of existing undergraduate courses under conventional and ODL system from learners point of view.

    a. Cost incurred for text books/SLM
    b. Cost incurred for transportation
    c. Cost incurred for accommodation
    d. Cost incurred for seminar/workshop
    e. Cost incurred for excursion/fieldtrips
    f. Cost incurred for library
    g. Cost incurred for laboratory

h. Cost incurred for computer lab

i. Cost incurred for technology

j. Cost incurred for information & communication

3.10 Reliability and validity of constructed questionnaires:

Guttman spilt-half method and Internal Consistency method has applied for obtaining the reliability coefficient of the questionnaires. The questioner was measured by administering on a group of 240 learners and 150 Teachers/Counsellors which are 30% of total sample of each group. The reliability coefficient was found to be as given in the following table-

Table 3.4: Reliability for questionnaires of learners of ODL/Conventional mode of education

	Cronbach's Alpha	N	Guttman spilt-half coefficient	No of items
Total	0.823	240	0.824	
Conventional	0.69	120	0.679	119
ODL	0.765	120	0.936	

Table3.5: Reliability for questionnaires of Teachers/Counselors of ODL/Conventional mode of education

	Cronbach's Alpha	N	Guttman spilt-half coefficient	No of Items
Total	0.770	150	0.916	
Conventional	0.72	75	0.747	119
ODL	0.814	75	0.948	

From the Table 3.4 and Table 3.5 it is depicted that the Guttman split half coefficient for learners of ODL/Conventional system is 0.824 and for teacher/counselors it is found that 0.916. The internal consistency for learners in case of ODL/Conventional system is 0.823 and that for teachers/counselors is found 0.770. The reliability of these questionnaires found to be satisfactory as the value of cronbach's Alpha is >= 0.7(Nunnally, 1978).

3.12 The Limitation of Present Study

1. The study is restricted to specific under graduate programme only. Other courses are not covered under the study.

2. The data collected regarding cost and quality is on recall basis and hence the common error of such data collection exists.

CHAPTER – IV

4. Introduction

In this study, first simple percentage analysis has been used for quantitative analysis of various groups of data. The percentage of sample groups has been distributed in the percentage analysis table on the basis of the value obtained through the questionnaire from the learners point of view in conventional and ODL mode of education. The values have been classified in various levels as specified in the manual of the questionnaire. T-test has been used to compare the actual difference between the mean value of ODL and conventional mode of education from the value obtained in the different parameters. The correlation has also been used to establish the relationship between the cost incurred by the learners and quality of conventional and ODL mode of education system. The result is based on responses of distance as well as conventional learners with respect to different components of the questionnaire, which are presented in different objectives.

4.1: The study of the quality of Conventional/ODL mode of education system

In this regard the following points have been considered:

(a) Quality of the structure of courses.

(b) Quality of the support given by the teachers/counselors.

(c) Quality of teachers/ counselors.

(d) Quality of learning experience.

(e) Comparative view of Conventional/ODL mode of education system.

(f) Comparative view of Conventional/ODL mode of education systemin respect of examination.

Obejective 1- The quality of the Conventional/ ODL mode of education of learners point of view

4.1(a) Quality of the structure of the course

Table : 4.1 - Data representing the percentage of the response of the learners of Conventional / ODL mode of education system in connection with the quality of the structure of the course

Course of structure	Conventional										ODL									
	Excellent		Very Good		Good		Average		Unsatisfactory		Excellent		Very Good		Good		Average		Unsatisfactory	
	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%
Clear learning goal	61	15.25	40	10	201	50.25	80	20	18	4.5	21	5.25	24	6	145	36.25	129	32.25	81	20.25
Realistic learning goals	20	5	60	15	160	40	125	31.25	35	8.75	16	4	48	12	145	36.25	145	36.25	46	11.5
Comprehensive analysis of cognitive fields	31	7.75	45	11.25	150	37.5	112	28	62	15.5	14	3.5	32	8	134	33.5	125	31.25	115	28.75
Includes recent literature	69	17.25	70	17.5	120	30	136	34	5	1.25	37	9.25	56	14	105	26.25	132	33	70	17.5
Adequately connected to relating fields	67	16.75	78	19.5	123	30.75	110	27.5	22	5.5	41	10.25	51	12.75	112	28	102	25.5	94	23.5
Interesting subordinate subjects	45	11.25	40	10	146	36.5	120	30	49	12.25	21	5.25	23	5.75	123	30.75	121	30.25	112	28
Help skills developm9.ent	56	14	40	10	112	28	156	39	36	9	12	3	32	8	102	25.5	132	33	122	30.5
Caters for a holistic development of the field	20	5	30	7.5	160	40	140	35	50	12.5	9	2.25	12	3	145	36.25	124	31	110	27.5
Content - goal relation	65	16.25	89	22.25	178	44.5	55	13.75	13	3.25	21	5.25	34	8.5	121	30.25	67	16.75	157	39.25

** Source : field study

4.1(a) The quality of the structure of courses

To study the quality of the structure of courses the investigator has analyzed the following parameters.

4.1.1 Clear Learning Goal

From table 4.1 and figure 4.1 It has been observed from the analysis of clear learning goal that 15.3% respondents of conventional learning are reported as excellent, 10% as very good, 50.3% as good, 20% as average, 4.5% as unsatisfactory while in case of ODL system of education 5.25% as excellent, 6% as very good, 36.25% as good, 32.25% as average and 20.25 % as unsatisfactory reported by the respondents. From the observation it can be concluded that the learners of conventional system has been shown better result than in open and distance mode of education.

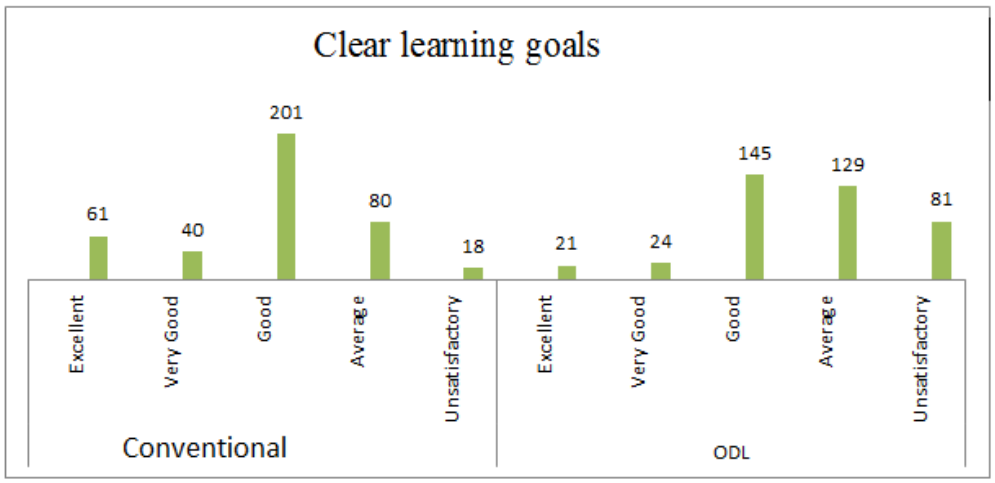


Figure 4.1: Graphical representation for clear learning goal in case of quality of the structure of courses in Conventional/ODL mode of education system.

4.1.2 Realistic Learning Goal

From table 4.1 and figure 4.2 It reveals that, 5% respondents of conventional learner reported as excellent, 15% as very good, 40% as good, 31.25% as average, 8.75% as unsatisfactory in realistic learning goal while in case of ODL system of education 4% as excellent, 12% as very good, 36.25% as good, 36.25% as average and 11.5 % as unsatisfactory reported by respondents. From the observation, it is observed that in case of the realistic learning goal, better performance is recorded in conventional education system in excellent, very good and good categories compared to ODL system but in average percentage ODL system is better than conventional education

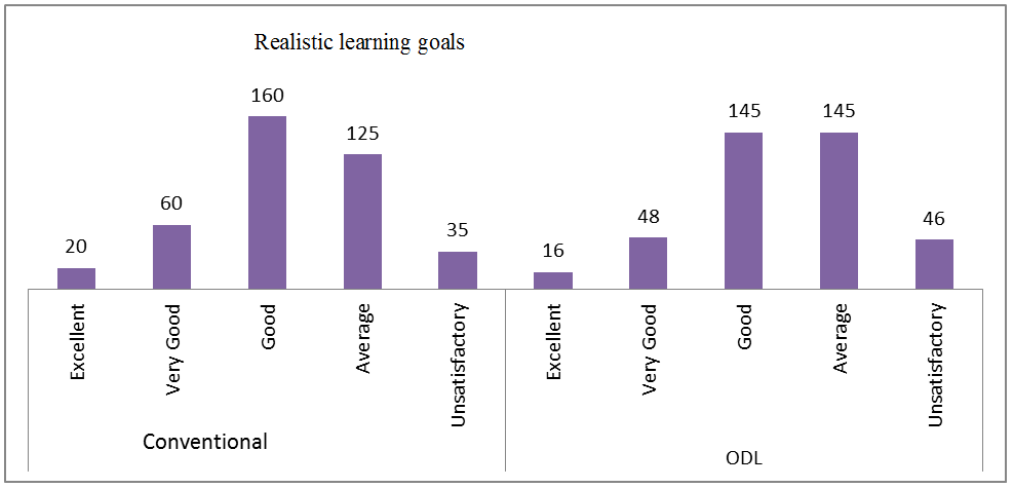


Figure 4.2: Graphical representation for Realistic learning goal in case of quality of structure of course of Conventional/ODL mode of education system.

4.1.3 Comprehensive Analysis of Cognitive Fields

It has been found from table 4.1 and figure 4.3 that, 7.75% respondents of conventional learning were reported as excellent, 11.25% as very good, 37.5% as good, 28% as average, 15.5% as unsatisfactory in case of comprehensive analysis

of cognitive fields while in ODL system of education, 3.5% as excellent, 8% as very good, 33.5% as good, 31.25% as average and 28.75 % as unsatisfactory reported by respondents. So it can be concluded that the conventional education system shows better performance than open and distance mode of education except in average percentage.

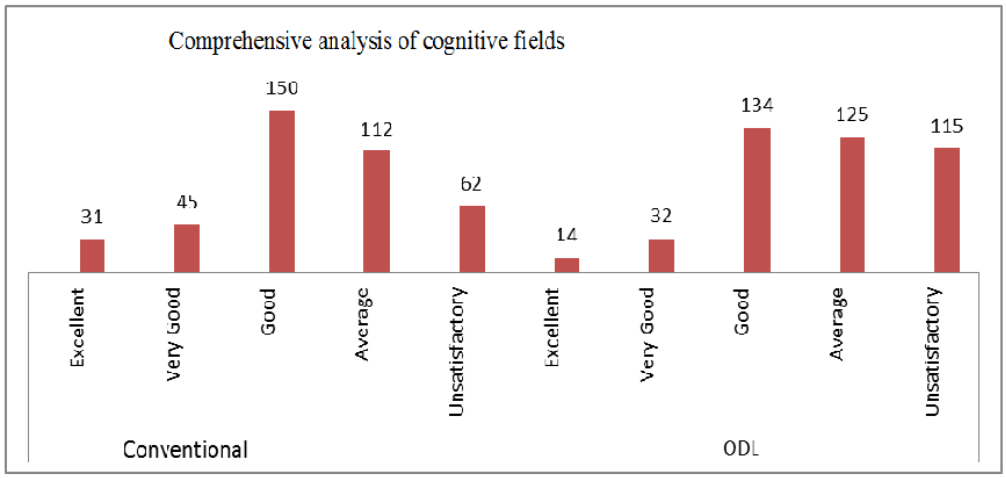


Figure 4.3: Graphical representation of comprehensive analysis of cognitive fields in case quality of the structure of the courseof Conventional/ODL mode of education system.

4.1.4 Includes Recent Literature

It has been observedfrom table 4.1 and figure 4.4 that, 17.3% respondents of conventional study reported as excellent, 17.5% as very good, 30% as good, 34% as average, 1.25% as unsatisfactory in recent literature while ODL system of education, 9.25% as excellent, 14% as very good, 26.25% as good, 33% as average and 17.5 % as unsatisfactory as reported by respondents. From the analysis, it can be concluded that the ODL learners show less performance than conventional mode of education.

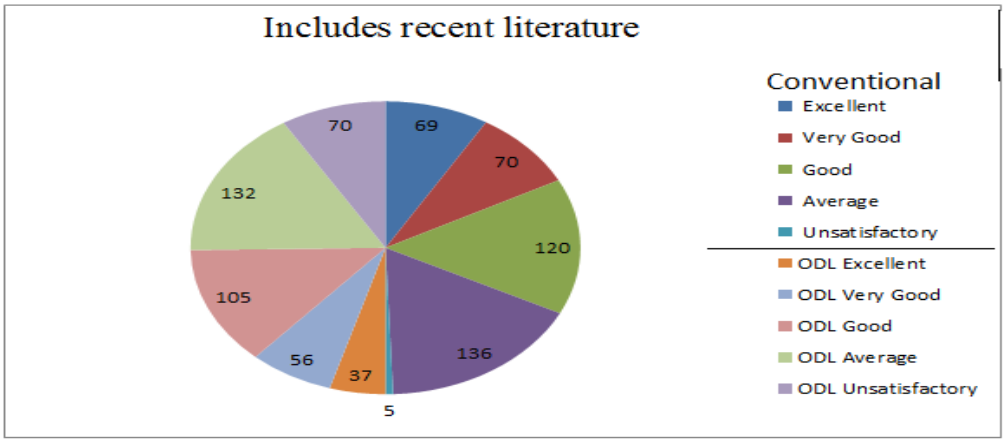


Figure 4.4: Graphical representation of include recent literature in case of quality of the structure of the course of Conventional/ODL mode of education system.

4.1.5 Adequately Connected to Related Fields

From table 4.1 and figure 4.5 it has been observed that, 16.75% respondents of conventional study were reported as excellent, 19.5% as very good, 30.75% as good, 27.5% as average, 5.5% as unsatisfactory while in ODL system of education 10.3% as excellent, 12.75% as very good, 28% as good, 25.5% as average and 23.5% as unsatisfactory as reported by respondents in case of adequately connected to related fields. Result implies that to justify the quality of structure of the course in case of adequately connected to related fields, conventional learners show better performance than ODL system of education.

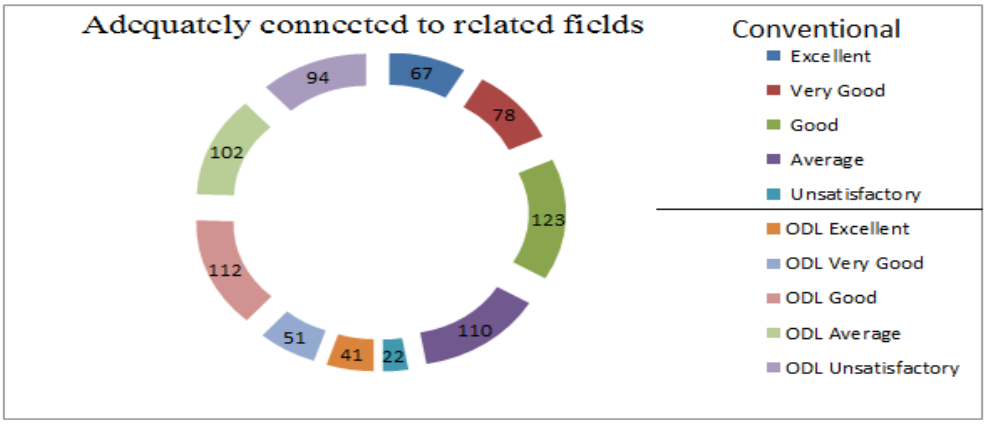


Figure 4.5: Graphical representation of adequately connected to related field in case of quality of the structure of the course of Conventional/ODL mode of education system.

4.1.6 Interesting Subordinate Subjects

From table 4.1 and figure 4.6 it has been revealed that, 11.25% respondents of conventional study reported as excellent, 10% as very good, 36.5% as good, 30% as average, 12.25% are unsatisfactory while in case of ODL system of education 5.25% as excellent, 5.75% as very good, 30.75% as good, 30.25% as average and 28 % as unsatisfactory as reported by ODL respondents. So it can be concluded that in connection to interesting subordinate subjects ODL performance is less than the learners of conventional mode of education.

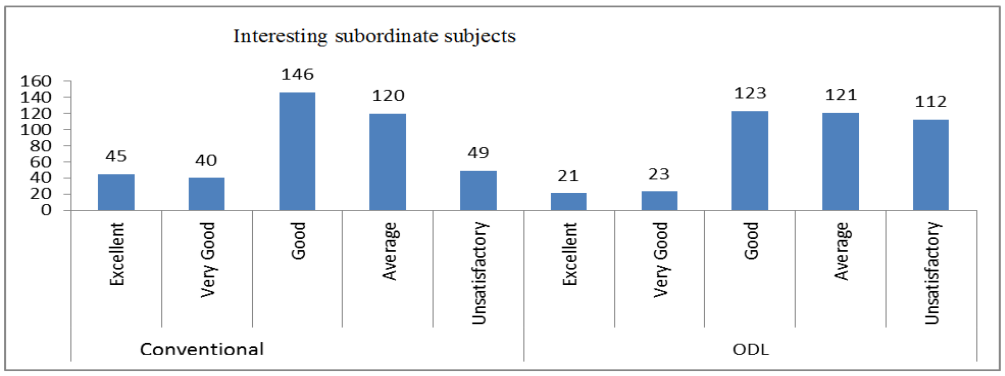


Figure 4.6: Graphical representation of interesting subordinate subjects in case quality of the structure of the course of Conventional/ODL mode of education system.

4.1.7 Skill Development

It implies from table 4.1 and figure 4.7 that 14% respondents of conventional study reported as excellent, 10% as very good, 28% as good, 39% as average, 9% as unsatisfactory in skill development while in case of ODL system of education 3% as excellent, 8% as very good, 25.5% as good, 33% as average and 30.5% as unsatisfactory as reported by respondents. As a result it can be concluded that conventional mode of education system has shown better performance than ODL mode of education.

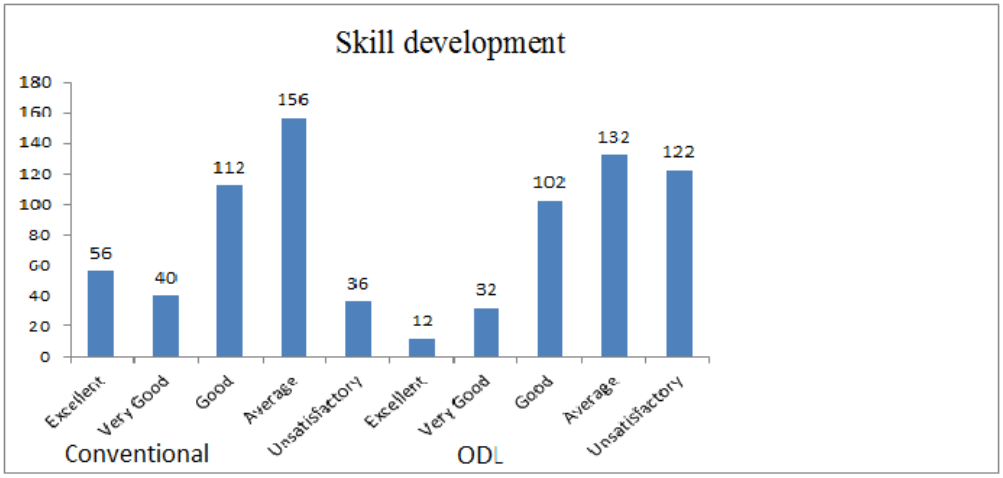


Figure 4.7: Graphical representation of skill development in case of quality of the structure of the course of Conventional/ODL mode of education system.

4.1.8 Holistic Development

It has been observed from table 4.1 and figure 4.8 that, 5% respondents of conventional study reported as excellent, 7.5% as very good, 40% as good, 35% as average, 12.5% as unsatisfactory in cater for holistic development of the field while 2.25% as excellent, 3% as very good, 36.25% as good, 31% as average and 27.5% as unsatisfactory reported by respondents. From the analysis, it can be concluded that the conventional learners have given better performance than open and distance mode of education learners.

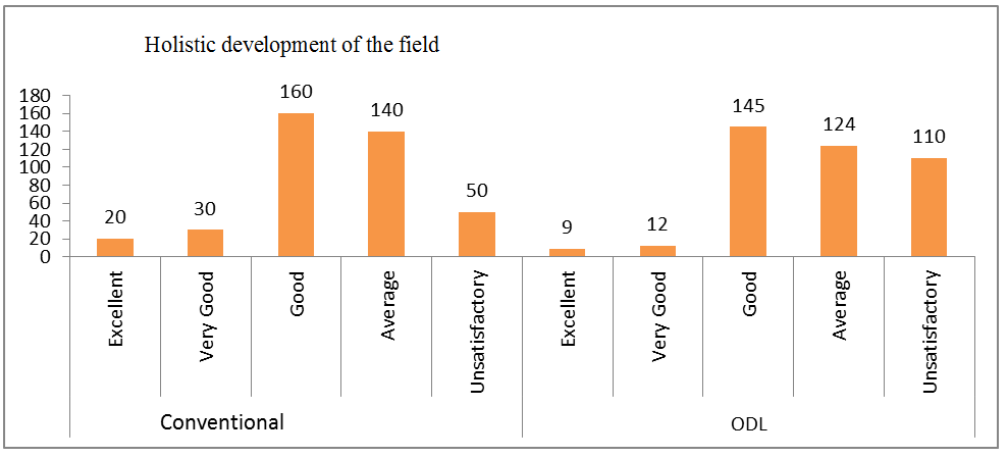


Figure 4.8: Graphical representation ofholistic development in case of quality of the structure of the course of Conventional/ODL mode of education system.

4.1.9 Content Goal Relation

From table 4.1 and figure 4.9 in content goal relation, it has been observed that 16.3% respondents of conventional study reported as excellent, 22.25% as very good, 44.5% as good, 13.75% as average, 3.25% are unsatisfactory while in ODL system of education, 5.25% as excellent, 8.5% as very good, 30.25% as good, 16.75% as average and 39.25% as unsatisfactory as reported by respondents. So in case of content goal relation, it hasimplied that ODL system has less performance but in average percentage ODL system has shown better result.

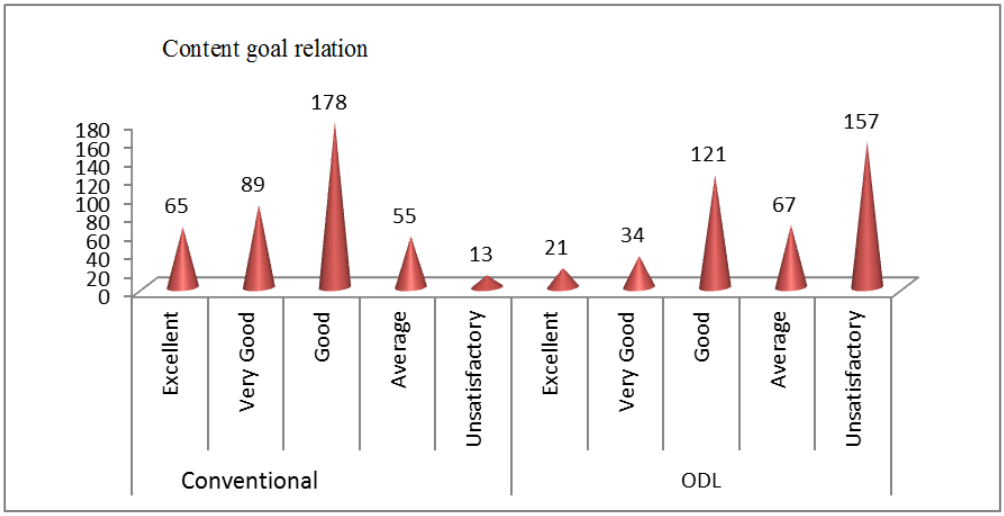


Figure 4.9: Graphical representation of content goal relation in case of quality of the structure of the course of Conventional/ODL mode of education system.

4.1.10 Test of Hypothesis

H1:There is no significant difference between the qualities of the structure of courses in Conventional/ODL mode of education system.

T-Test:

Table 4.2: t- value for the quality ofstructure of the courses

Course	N	Mean	Std. Deviation	t	Df	Sig. (2-tailed)
CONVENTIONAL	400	26.37	1.281	29.156	798	.000**
ODL	400	21.76	2.886			

**Significant level is at P<0.01

The graphical representation of the mean value of T-test for the quality of the structure of the courses is as given below:

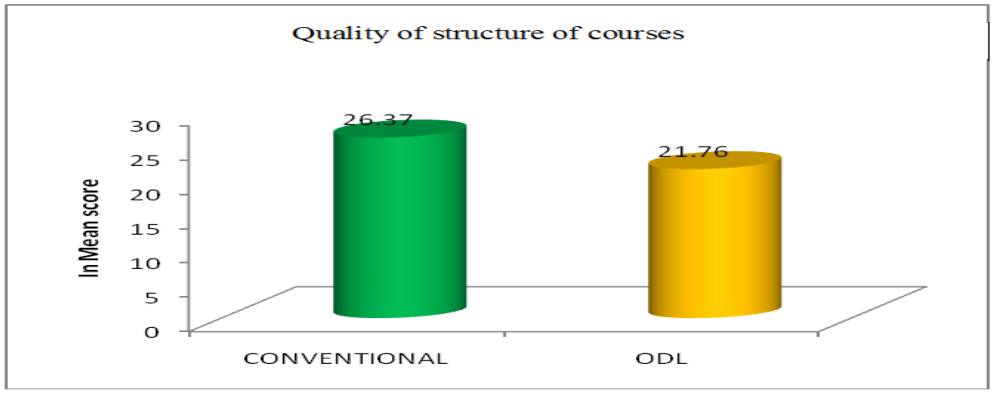


Figure 4.10:Graphical representation of the mean value of T-test for the quality of the structure of the course in case of Conventional/ODL mode of education system.

4.1.11Observation**:**From table 4.2 and figure 4.10 it has been depicted that the quality of the structure of courses of Conventional / ODL mode of education has the mean scores 26.37 and 21.76, SD are 1.281 and 2.886 respectively. The t-value is 29.156, 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 quality of structure of the conventional course is better than the quality of structure of ODL course. Thus, the hypothesis can be rejected.

1(b) Quality of support given by the Teachers/Counselors

Table : 4.3 - Data representing the percentage of the response of the learners of Conventional / ODL mode of education system in connection with the quality of the support given by the teacher / counselors

Quality of support given by the teachers/ counselors	Conventional										ODL									
	Excellent		Very Good		Good		Average		Unsatisfactory		Excellent		Very Good		Good		Average		Unsatisfactory	
	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%
He/She encouraged my participation	92	23	142	35.5	120	30	23	5.75	23	5.75	65	16.25	123	30.75	112	28	45	11.25	55	13.75
Eager to help	85	21.25	103	25.75	113	28.25	65	16.25	44	11	67	16.75	98	24.5	109	27.25	46	11.5	80	20
He / She guided me to the comprehension of the learning material	93	23.25	120	30	123	30.75	45	11.25	19	4.75	68	17	110	27.5	110	27.5	59	14.75	54	13.5
He / She was available to instruct	89	22.25	125	31.25	145	36.25	35	8.75	6	1.5	57	14.25	121	30.25	140	35	58	14.5	24	6
He / She watched my progress	95	23.75	125	31.25	123	30.75	31	7.75	26	6.5	34	8.5	37	9.25	67	16.75	76	19	186	46.5
He/ She offered feedback with a view to improvement	97	24.25	121	30.25	110	27.5	45	11.25	27	6.75	11	2.75	12	3	23	5.75	21	5.25	333	83.25 .
He / She reinforced the group dynamics	78	19.5	112	28	109	27.25	67	16.75	34	8.5	9	2.25	12	3	23	5.75	135	33.75	221	55.25
He / She realized the difficulties and helped me out	88	22	124	31	110	27.5	36	9	42	10.5	5	1.25	34	8.5	57	14.25	80	20	224	56

** Source : field study

4.1(b) Quality of support given by teachers/counselors

To study the quality of support given by the teachers/counselors the investigator has analyzed the following parameters

4.1.12 Encouraged my participation by the teachers/counselors

From table 4.3 and figure 4.11 in connection to encouraged my participation by the teachers/counselors**,** 23% respondents of conventional study reported as excellent, 35.5% as very good, 30% as good, 5.75% as average, 5.75% as unsatisfactory while in case of ODL system of education 16.3% as excellent, 30.75% as very good, 28% as good, 11.25% as average and 13.75 % as unsatisfactory as reported by respondents. From the observation, it can be concluded that conventional mode of education system has shown better performance than ODL mode of education in case of excellent, very good, and good categories but in average percentage it shows better result from ODL system.

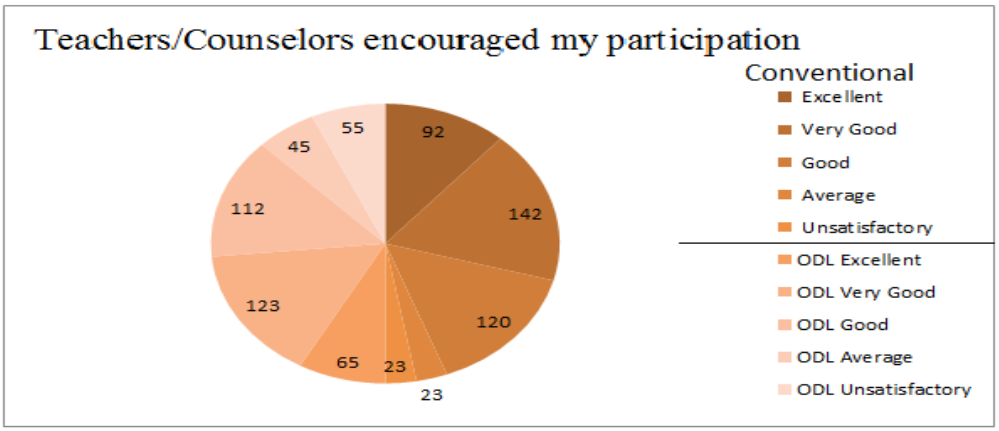


Figure 4.11: Graphical representation of Teacher/Counselors encouraged my participation related to the quality of support given by teachers/counselors in case of Conventional/ODL mode of education system.

4.1.13 Eager to help

It has been observed from table 4.3 and figure 4.12 that, 21.25% respondents of conventional study reported as excellent, 25.75% as very good, 28.3% as good, 16.25% as average, 11% as unsatisfactory in case of eager to help while in case of ODL system of education 16.75% as excellent, 24.5% as very good, 27.25% as good, 11.5% as average and 20% as unsatisfactory as reported by respondents. As a result it implies that conventional mode of education system has shown better performance than ODL mode of education.

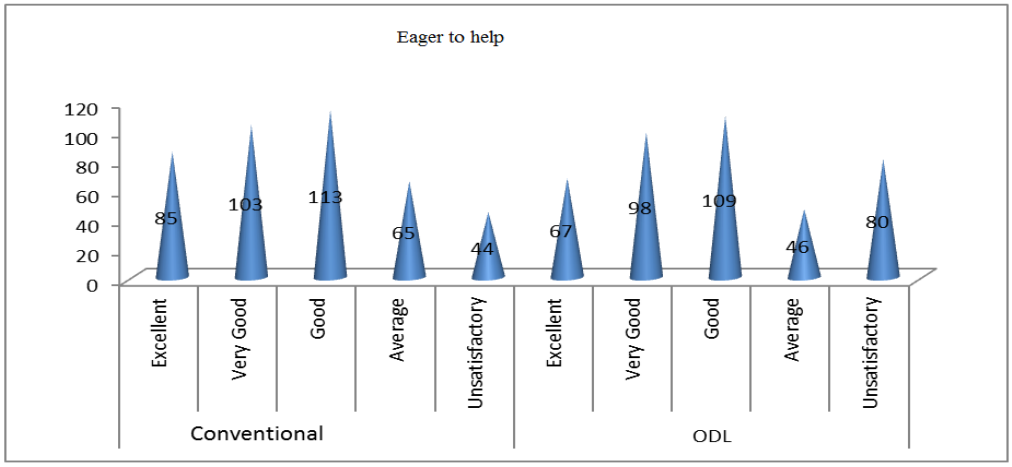


Figure 4.12: Graphical representation of eager to help related to the quality of support given by teachers/counselors in case of Conventional/ODL mode of education.

4.1.14 Guided to the comprehension of the learning material

It has been revealed from table 4.3 and figure 4.13 that, 23.25% respondents of conventional study reported as excellent, 30% as very good, 30.75% as good, 11.25% as average, 4.75% as unsatisfactory in relation to guide to the comprehension of the learning material while in case of ODL system of

education, 17% as excellent, 27.5% as very good, 27.5% as good, 14.75% as average and 13.5% as unsatisfactory as reported by respondents. Result shows that conventional education system has better performance than ODL system of education.

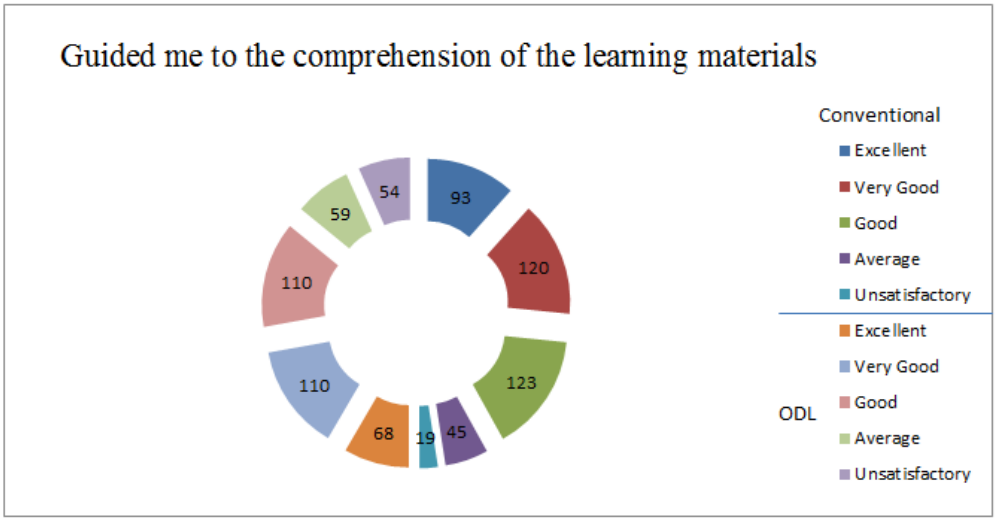


Figure 4.13: Graphical representation of Teachers/Counselors guided me to the comprehension of the learning material in case of Conventional/ODL mode of education system.

4.1.15 Teachers/Counselors available to instruct

From table 4.3 and figure 4.14 it has been observed that, 22.25% respondents of conventional study reported as excellent, 31.25% as very good, 36.25% as good, 8.75% as average, 1.5% as unsatisfactory in case of teachers/counselors available to instruct while in ODL system of education 14.25% as excellent, 30.25% as very good, 35% as good, 14.5% as average and 6% as unsatisfactory as reported by respondents. From the observation, it can be concluded that ODL system

shows less performance in case of teachers/counselors available to instruct than conventional mode of education.

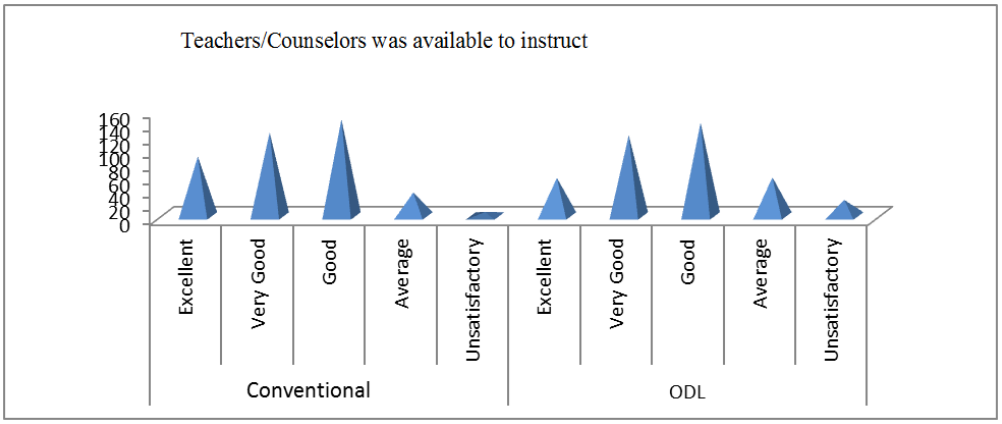


Figure 4.14: Graphical representation of teachers/counselors available to instruct in case of Conventional/ODL mode of education system.

4.1.16 Watch my progress

From table 4.3 and figure 4.15 in connection to the watch my progress, it is found that, 23.75% respondents of conventional study reported as excellent, 31.25% as very good, 30.75% as good, 7.75% as average, 6.5% as unsatisfactory. While in case of ODL system of education 8.5% as excellent, 9.25% as very good, 16.75% as good, 19% as average and 46.5 % as unsatisfactory as reported by respondents. As a result it can be concluded that conventional system has better performance than ODL mode of education.

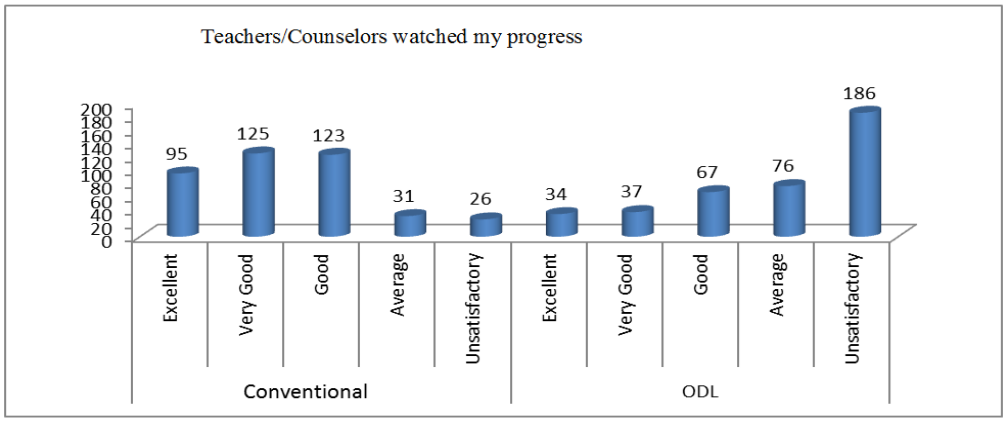


Figure 4.15: Graphical representations of teachers/counselors watch my progress in case of Conventional/ODL mode of education system.

4.1.17 Offer feedback with a view to improvement

From table 4.3 and figure 4.16 it has been revealed from observation that, 24.25% respondents of conventional study reported as excellent, 30.25% as very good, 27.5% as good, 11.25% as average, 6.75% are unsatisfactory in offer feedback with a view to improvement while in ODL system of education, 2.75% as excellent, 3% as very good, 5.75% as good, 5.25% as average and 83.25% as unsatisfactory as reported by respondents. As a result, it can be concluded that the conventional education system shows better performance than open and distance mode of education except average percentage.

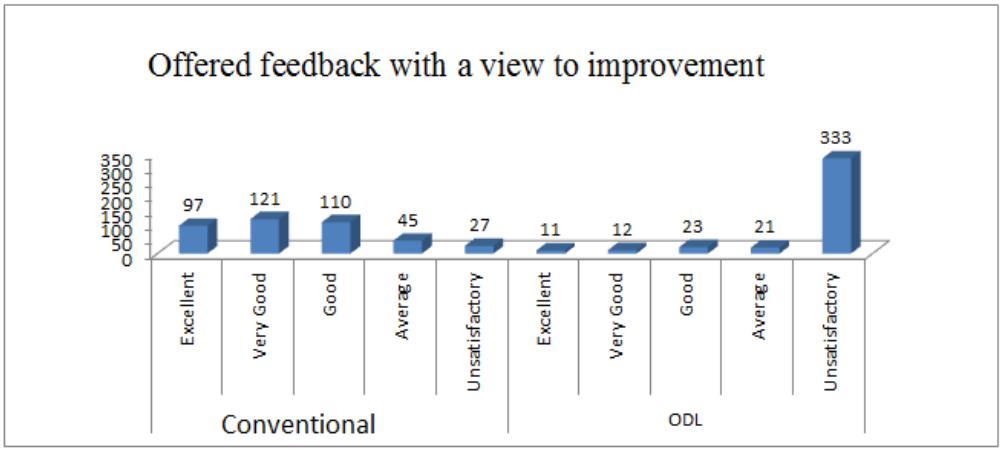


Figure 4.16: Graphical representation of teachers/counselors offered feedback with a view to improvement in case of Conventional/ODL mode of education system.

4.1.18 Reinforced the Group Dynamics

From table 4.3 and figure 4.17 in case of reinforced the group dynamics, 19.5% respondents of conventional study reported as excellent, 28% as very good, 27.25% as good, 16.75% as average, 8.5% are unsatisfactory while in ODL system of education, 2.25% as excellent, 3% as very good, 5.75% as good, 33.75% as average and 55.25% as unsatisfactory as reported by respondents. From the observation it can be concluded that the conventional education system shows better performance except in average percentage than open and distance mode of education.

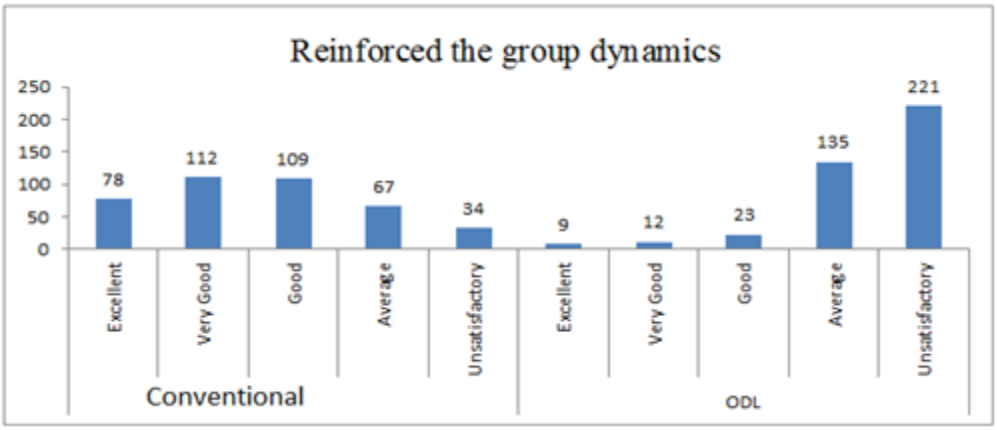


Figure 4.17: Graphical representation of teachers/Counselors reinforced the group dynamics in case of Conventional/ODL mode of education system.

4.1.19 Realized the Difficulties

From table 4.3 and figure 4.18 it has been observed that, 22% respondents of conventional study reported as excellent, 31% as very good, 27.5% as good, 9% as average, 10.5% as unsatisfactory realized the difficulties and help me out while in ODL system 1.25% as excellent, 8.5% as very good, 14.25% as good, 20% as average and 56% as unsatisfactory as reported by respondents. It has implied that the conventional education system shows better performance except in average percentage than open and distance mode of education.

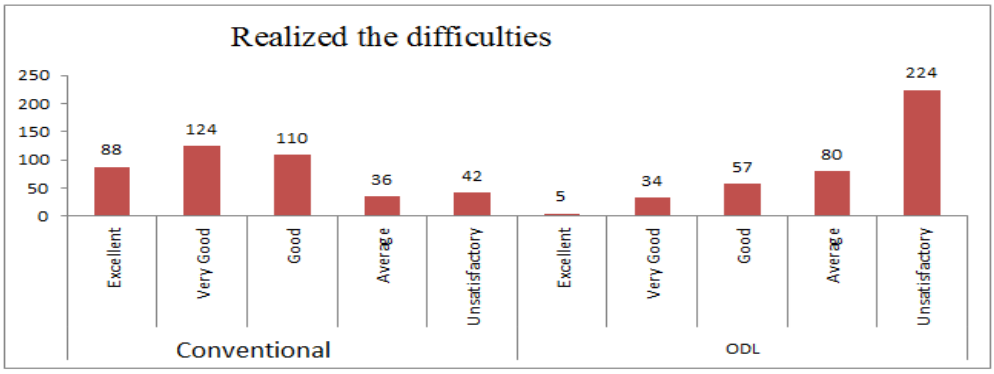


Figure 4.18: Graphical representation of teachers/counselors realized the difficulties in case of Conventional/ODL mode of education system.

4.1.20 Test of Hypothesis

H2:There is no significant difference between Conventional/ODL mode of education system in case of the quality of support given by the teachers/counselors.

T-Test:

Table 4.4: t-value for the quality of support given by teachers/counselors.

course	N	Mean	Sd. deviation	t	Df	Sig. (2-tailed)
CONVENTIONAL	400	27.74	2.33	45.921	798	.000**
ODL	400	19.79	2.564			

**Significant level is at P<0.01

The graphical representation of the mean value of T-test for the quality of support given by the teachers/counselors is given below -

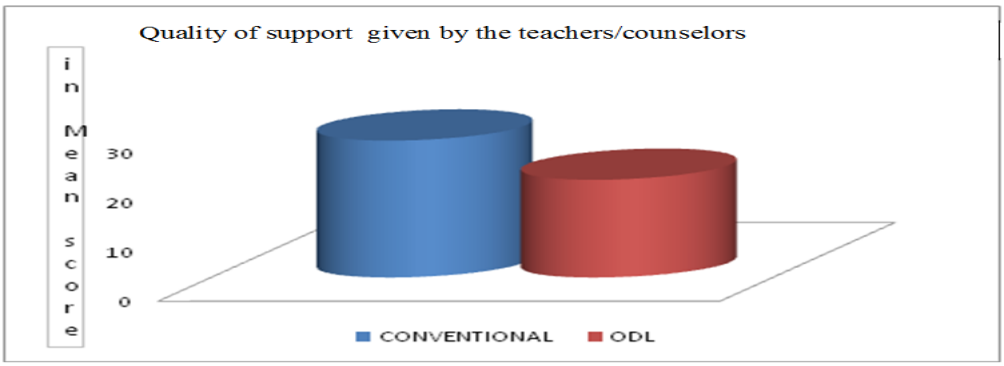


Figure 4.19: Graphical representation of the mean value of T-test for the quality of structure of the course in case of Conventional/ODL mode of education system.

4.1.21 Observation: From table 4.4 and figure 4.19 implies that the quality of support given by the teachers/counselors of Conventional and ODL has the mean scores 27.74 and 19.79, SD are 2.33 and 2.564 respectively. The t-value is 45.921, 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 quality of the support given by the teachers/counselors of the conventional course is better than quality of support of ODL course. Thus, the hypothesis can be rejected.

1(c) Quality of Teachers/Counselors

Table : 4.5 - Data representing the percentage of the response of the learners in connection with the quality of Teachers / Counselors of Conventional / ODL mode of education system

Quality of Teachers/ Counselors	Conventional										ODL									
	Excellent		Very Good		Good		Average		Unsatisfactory		Excellent		Very Good		Good		Average		Unsatisfactory	
	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%
Scientific Background	85	21.25	127	31.75	121	30.25	78	19.5	67	16.75	80	20	121	30.25	119	29.75	76	19	4	1
Emphasis on analytical thinking	92	23	111	27.75	109	27.25	82	20.5	6	1.5	87	21.75	101	25.25	98	24.5	97	24.25	17	4.25
Teaching capability	110	27.5	98	24.5	95	23.75	70	17.5	27	6.75	103	25.75	94	23.5	78	19.5	69	17.25	56	14
Instructional thoroughness of the learning material	65	16.25	114	28.5	120	30	85	21.25	16	4	63	15.75	102	25.5	97	24.25	92	23	46	11.5
Ability to commuicate knowledge	112	28	125	31.25	99	24.75	45	11.25	19	4.75	110	27.5	121	30.25	91	22.75	67	16.75	11	2.75

** Source : field study

4.1(c) Quality of teachers/counselors

To study the quality of teachers/counselors in conventional/ODL mode of education system the investigator has analyzed the following parameters.

4.1.22 Scientific background

From table 4.5 and figure 4.20 it has been observed that in connection with scientific background of the teachers/counselors21.25% respondents of conventional study reported as excellent, 31.75% as very good, 30.25% as good, 19.5% as average, 16.75% are unsatisfactory while in case of ODL system of education 20% as excellent, 30.25% as very good, 29.75% as good, 19% as average and 1% as unsatisfactory as reported by respondents. From the observation it can be concluded that the conventional education system shows better performance than open and distance mode of education.

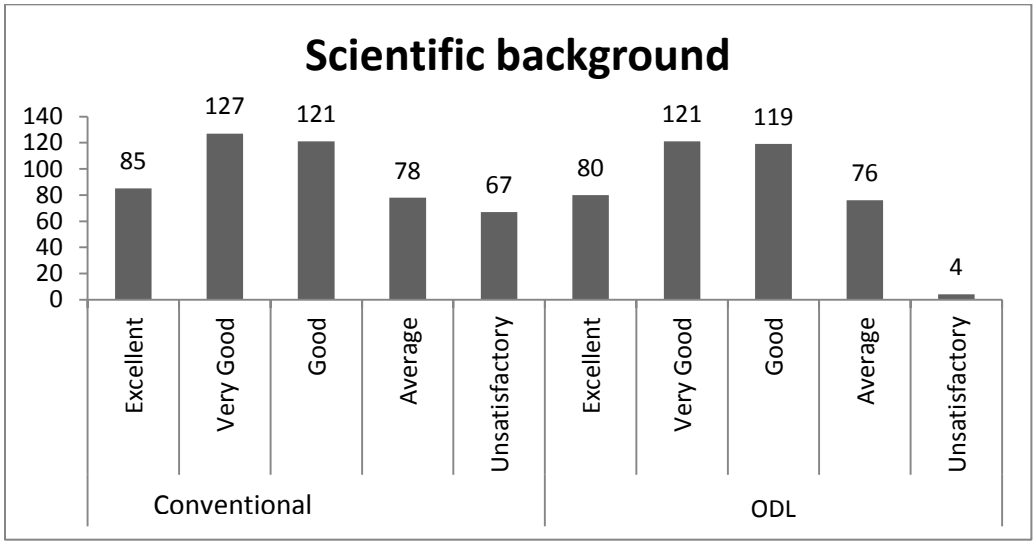


Figure 4.20: Graphical representation of scientific background of the teachers/counselors in case of Conventional/ODL mode of education system.

4.1.23 Analytical thinking

From table 4.5 and figure 4.21 in case of analytical thinking, 23% respondents of conventional study reported as excellent, 27.75% as very good, 27.25% as good, 20.5% as average, 1.5% as unsatisfactory while in ODL system, 21.75% as excellent, 25.25% as very good, 24.5% as good, 24.25% as average and 4.25 % as unsatisfactory as reported by the respondents. From the analysis it can be concluded that the conventional education system shows better performance than open and distance mode of education except in average percentage.

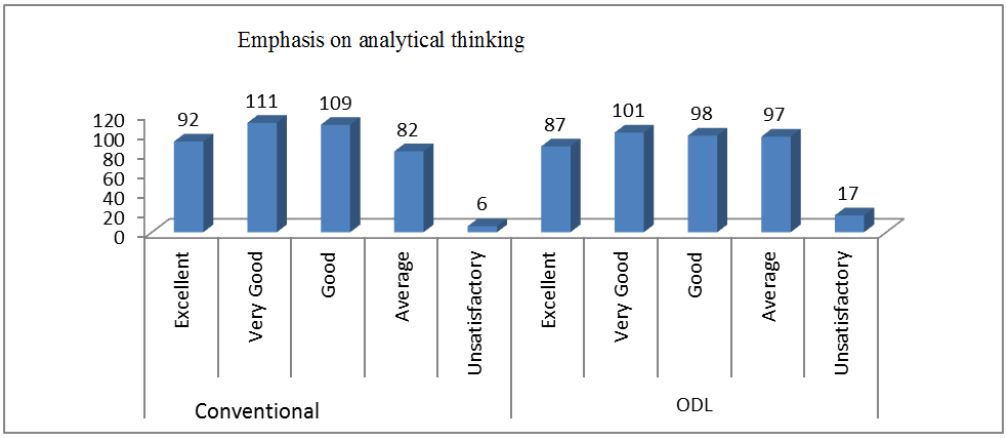


Figure 4.21: Graphical representation of emphasis on analytical thinking in case of quality of the structure of the course of conventional/ODL mode of education.

4.1.24 Teaching capability

From table 4.5 and figure 4.22 it has been revealed that in connection with the teaching capability, 27.5% respondents of conventional study reported as excellent, 24.5% as very good, 23.75% as good, 17.5% as average, 6.75% are unsatisfactory while in ODL system, 25.75% as excellent, 23.5% as very good, 19.5% as good, 17.25% as average and 14% as unsatisfactory as reported by

respondents. Thus it can be concluded that the conventional education system has better performance than open and distance mode of education.

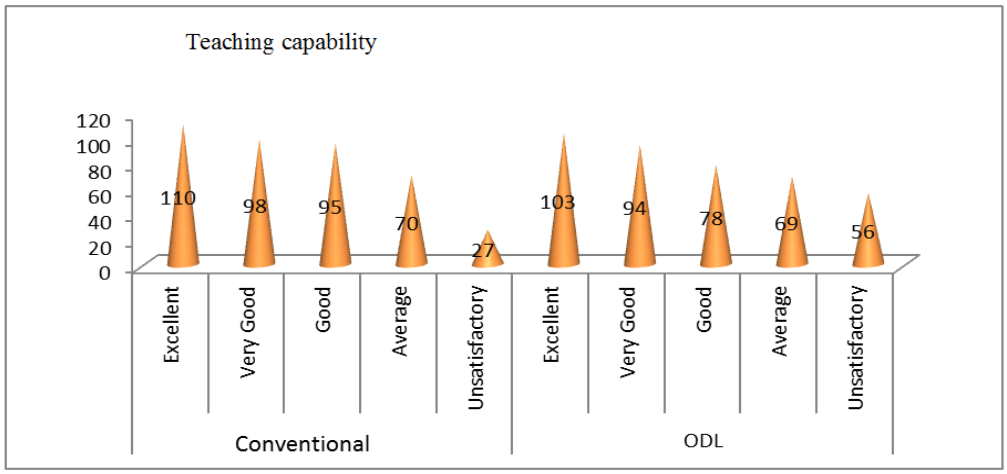


Figure 4.22: Graphical representation of teaching capability in case of Conventional/ODL mode of education system.

4.1.25 Instructional thoroughness of the learning materials

It has been observed from table 4.5 and figure 4.30 that, 16.3% respondents of conventional study reported as excellent, 28.5% as very good, 30% as good, 21.25% as average, 4% are unsatisfactory in instructional thoroughness of the learning materials while in ODL system of education, 15.75% as excellent, 25.5% as very good, 24.25% as good, 23% as average and 11.5 % as unsatisfactory as reported by respondents. As a result it implies that the conventional education system shows better performance than open and distance mode of education.

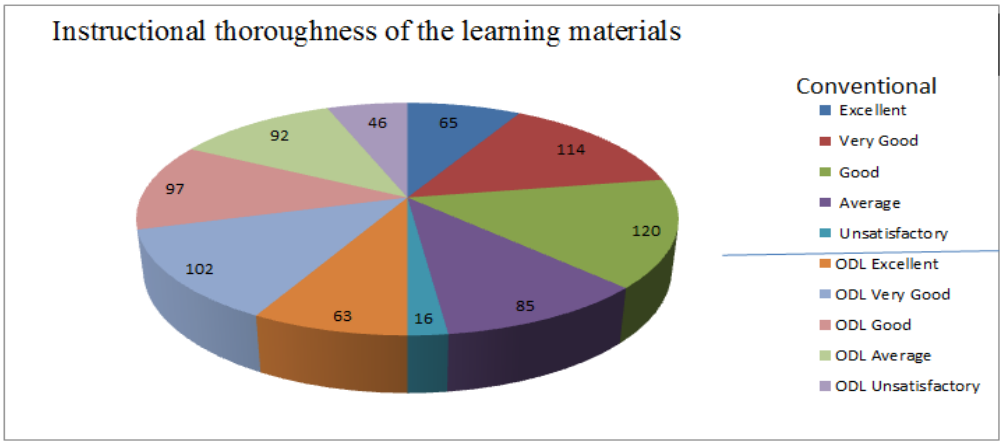


Figure 4.23: Graphical representation of Instructional thoroughness of the learning materials in case of Conventional/ODL mode of education system.

4.1.26 Ability to communicate knowledge

It has been observed from table 4.5 and figure 4.24 that in case of ability to communicate knowledge, 28% respondents of conventional study reported as excellent, 31.25% as very good, 24.75% as good, 11.25% as average, 4.75% are unsatisfactory while in ODL system of education, 27.5% as excellent, 30.25% as very good, 22.75% as good, 16.75% as average and 2.75% as unsatisfactory as reported by distance learning. From the analysis it can be concluded that the conventional education system shows better performance than open and distance mode of education.

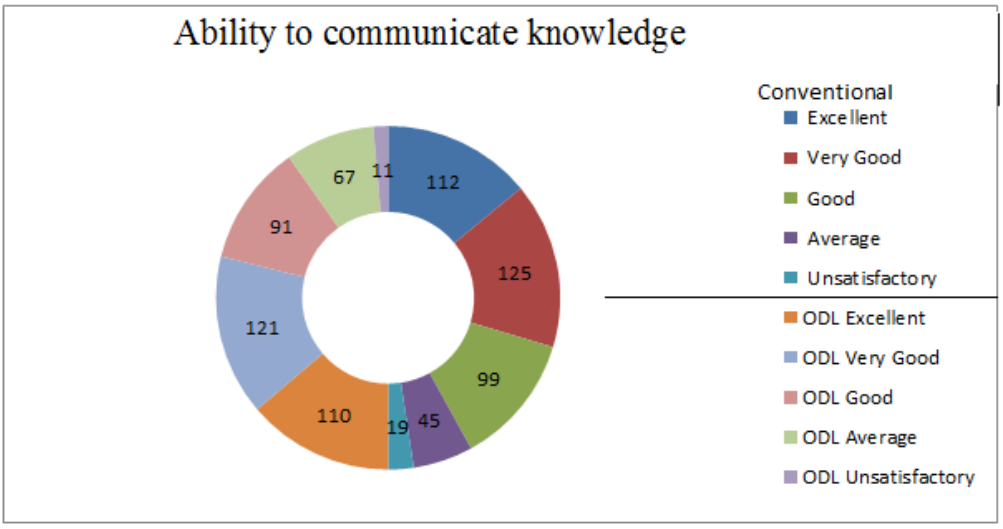


Figure 4.24: Graphical representation of ability to communicate knowledge in case of Conventional/ODL mode of education system.

4.1.27 Test of Hypothesis

H3: There is no significant difference between the qualities of teachers/counselors in Conventional/ODL mode of education system.

T-Test:

Table 4.6: T-value for the quality of teachers/counselors from learner's point of view

	N	Mean	Sd. deviation	t	df	Sig.
CONVENTIONAL	400	17	1.793	6.31	798	.000**
ODL	400	16.35	1.046			

**Significant level is at P<0.01

The graphical representation of the mean value of T-test for the quality of teachers/counselors in conventional and ODL system of education is as given below

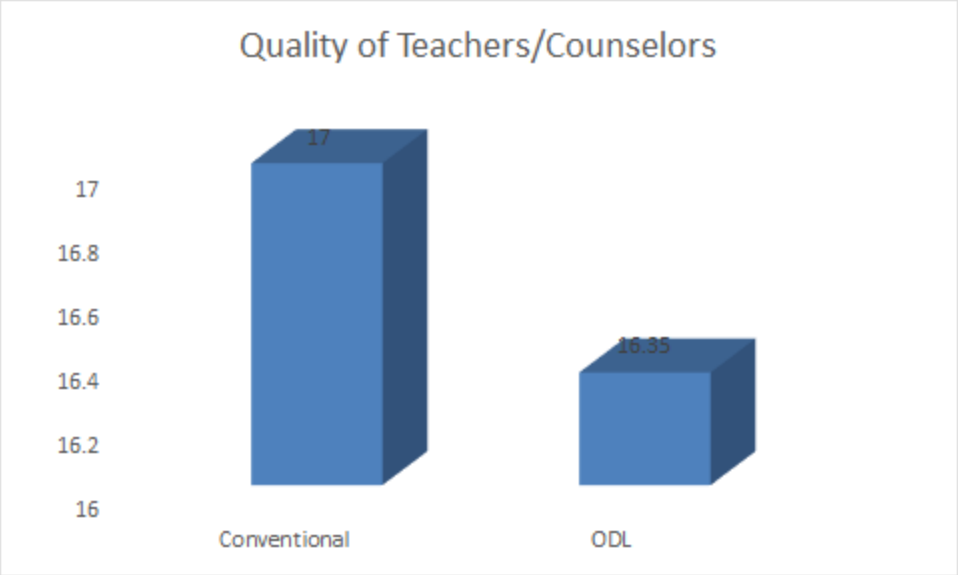


Figure 4.25: Graphical representation of the mean value of T-test for the quality of teachers/counselors in case of Conventional/ODL mode of education system.

4.1.28 Observation**:**From table 4.6 and figure 4.25 it has been observed that the quality of teachers/counselors in Conventional and ODL mode of education system has the mean scores 17 and 16.35, SD are 1.793 and 1.046 respectively. The T-value is 6.31, 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 quality of teachers in conventional course is higher than quality of teachers in ODL course. Thus, the hypothesis can be rejected.

1(d) Quality of Learning Experience

Table : 4.7 - Data representing the percentage of the response of the learners in the quality of learning experience of the Conventional / ODL mode of education system

Quality of Learning Experience	Conventional										ODL									
	Excellent		Very Good		Good		Average		Unsatisfactory		Excellent		Very Good		Good		Average		Unsatisfactory	
	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%
Conception from SLM / text book	89	22.25	123	30.75	124	31	45	11.25	19	4.75	80	20	102	25.5	121	30.25	35	8.75	62	15.5
Benefit from Assignment	78	19.5	105	26.25	114	28.5	71	17.75	32	8	121	30.25	110	27.5	80	20	78	19.5	11	2.75
Support provided by the teacher advisors	112	28	125	31.25	79	19.75	67	16.75	17	4.25	80	20	112	28	65	16.25	69	17.25	74	18.5
Teacher Counselor Quality	101	25.25	127	31.75	98	24.5	45	11.25	29	7.25	100	25	132	33	79	19.75	46	11.5	43	10.75

** Source : field study

4.1(d) The quality of learning experiences

To study the quality of learning experience of learners the investigator has analyzed the following parameters.

4.1.30 Conception from SLM/Text book

From table 4.7 and figure 4.26 it has been observed that in connection with conception from SLM/Text book, 22.25% respondents of conventional study reported as excellent, 30.75% as very good, 31% as good, 11.25% as average, 4.75% are unsatisfactory while in case of ODL system of education 20% as excellent, 25.5% as very good, 30.25% as good, 8.75% as average and 15.5 % as unsatisfactory as reported by respondents. From the analysis it can be concluded that the conventional education system shows better performance than open and distance mode of education.

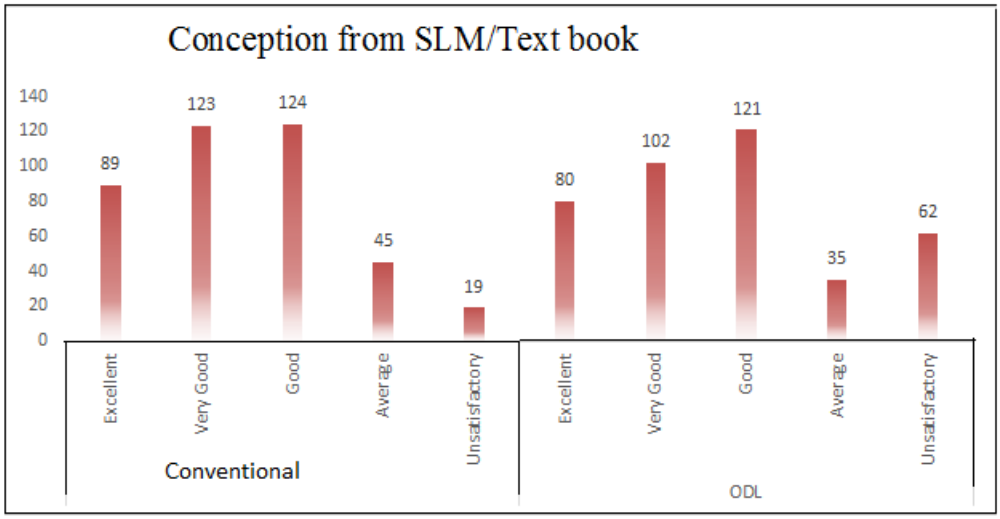


Figure 4.26: Graphical representation of conception from SLM/Text book in case of Conventional/ODL mode of education system.

4.1.31 Benefit from assignment

From table 4.7 and figure 4.27 in connection with the benefit from assignment, 19.5% respondents of conventional study reported as excellent, 26.25% as very good, 28.5% as good, 17.75% as average, 8% are unsatisfactory while in case of ODL system of education 30.25% as excellent, 27.5% as very good, 20% as good, 19.5% as average and 2.75 % as unsatisfactory reported by respondents. As a result it implies that the conventional education system shows better performance in very good and average categories than open and distance mode of education but in excellent and good categories ODL is better than conventional.

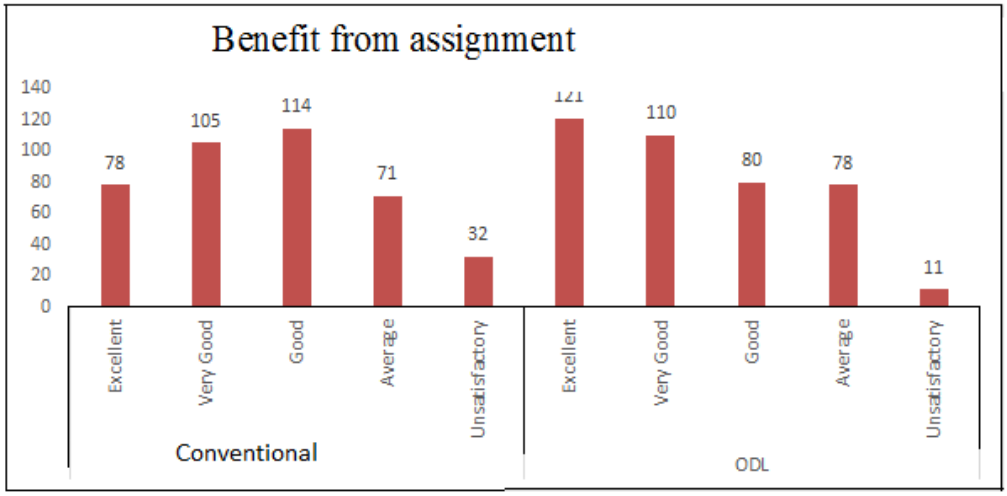


Figure 4.27: Graphical representation of benefit from assignment in case of Conventional/ODL mode of education.

4.1.32 Support provided by the teachers/counselors

It has been foundfrom table 4.7 and figure 4.28 that, 28% respondents of conventional study reported as excellent, 31.25% as very good, 19.75% as good, 16.75% as average, 4.25% as unsatisfactory in connection to support provided by the teachers/Councilors while in case of ODL system of education 20% as

excellent, 28% as very good, 16.25% as good, 17.25% as average and 18.5 % as unsatisfactory as reported by respondents. From the observation, it can be concluded that conventional education system shows better performance than open and distance mode of education.

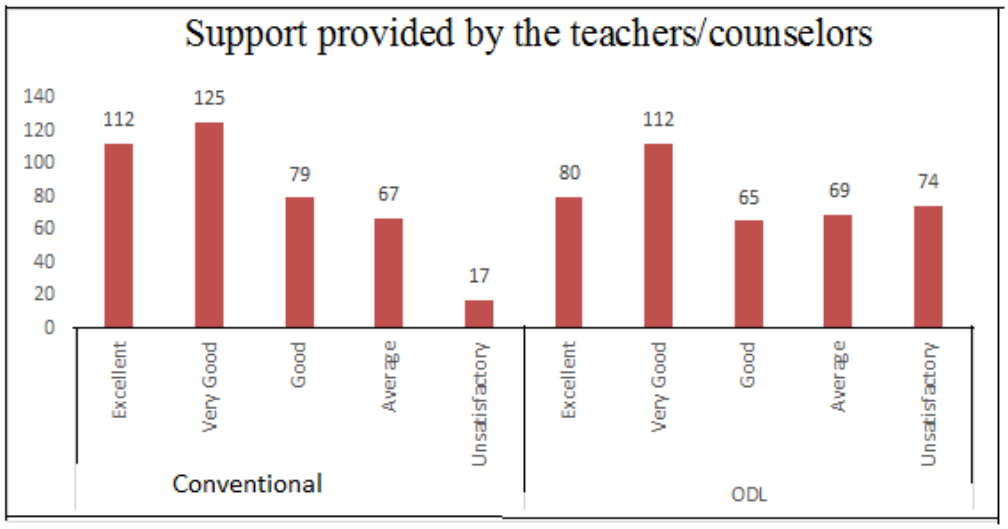


Figure 4.28: Graphical representation of support provided by the teachers/counselors in case of Conventional/ODL mode of education system.

4.1.33 Teachers/Counselors quality

From table 4.7 and figure 4.29 it has been observed that in connection with the quality of the structure of the course, 25.25% respondents of conventional study reported as excellent, 31.75% as very good, 24.5% as good, 11.25% as average, 7.25% are unsatisfactory in teachers/counselors quality while in case of ODL system of education 25% as excellent, 33% as very good, 19.75% as good, 11.5% as average and 10.75 % as unsatisfactory as reported by distance learning respondents. Hence the conventional education system shows better performance except in average percentage than open and distance mode of education.

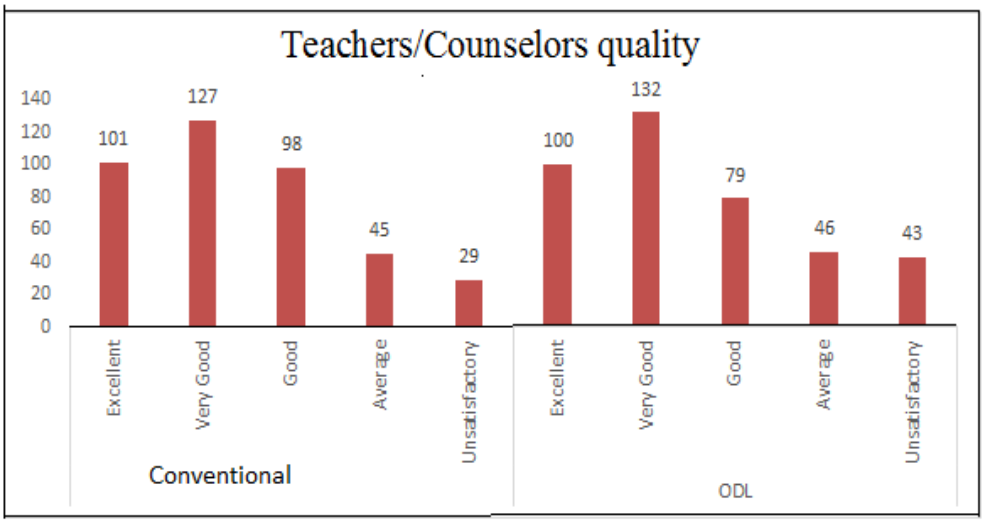


Figure 4.29: Graphical representation of teachers/counselors quality in Conventional/ODL mode of education system.

4.1.34 Test of Hypothesis

H4:There is no significant difference in Conventional/ODL mode of education system in case of the quality of learning experiences.

T-Test:

Table 4.8: t-value for the quality of learning experiences from learner's point of view

Course	N	Mean	Sd. deviation	T	df	Sig.
CONVENTIONAL	400	14.05	1.287	6.916	798	.000**
ODL	400	13.5	0.909			

**Significant level is at P<0.01

The graphical representation of the mean value of T-test for the quality of learning experience in conventional/ODL system of education from learner's point of view is as given below:

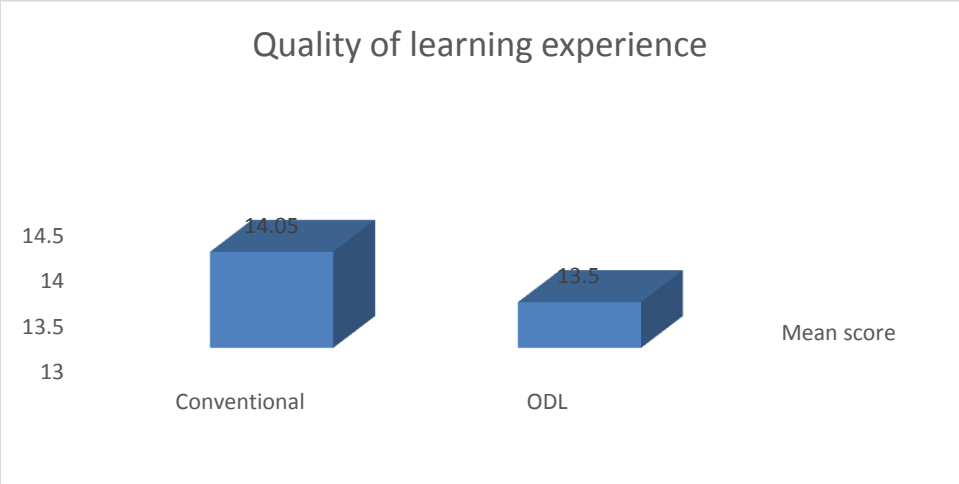


Figure 4.30: Graphical representation of the mean value of T-test for the quality of learning experience in case of Conventional/ODL mode of education system.

4.1.35 Observation**:**From table 4.8 and figure 4.30 it is revealed that the quality of learning experience in Conventional/ ODL mode of education system has the mean scores 14.05 and 13.5, SD are 1.287 and 0.909 respectively. The t-value is 6.916, 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 quality of learning experience of conventional course is better than the quality of learning experience of ODL course. Thus, the hypothesis can be rejected.

1(e) Comparative view of Conventional / ODL mode of education

Table : 4.9 - Data representing the percentage of the response of the learners in comparative view of Conventional / ODL mode of education system

Comparative view	Conventional										ODL									
	Excellent		Very Good		Good		Average		Unsatisfactory		Excellent		Very Good		Good		Average		Unsatisfactory	
	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%
Programme in effective	95	23.75	110	27.5	120	30	70	17.5	5	1.25	92	23	106	26.5	115	28.75	68	17	19	4.75
Economy Cost effective	0	0	95	23.75	84	21	165	41.25	56	14	160	40	80	20	145	36.25	13	3.25	2	0.5
Useful in Understanding	86	21.5	126	31.5	112	28	58	14.5	12	3	40	10	104	26	112	28	46	11.5	98	24.5
Acquisition of More knowledge	91	22.75	129	32.25	87	21.75	45	11.25	48	12	81	20.25	121	30.25	78	19.5	41	10.25	79	19.75
Organised Approaches	60	15	135	33.75	112	28	78	19.5	15	3.75	21	5.25	78	19.5	101	25.25	67	16.75	133	33.25
Easy access to Communication	90	22.5	127	31.75	90	22.5	67	16.75	26	6.5	20	5	78	19.5	81	20.25	79	19.75	142	35.5
Effective use of information and communication technology	0	0	45	11.25	95	23.75	47	11.75	213	53.25	0	0	56	14	67	16.75	81	20.25	196	49
Effective SLM/ print audio - visual	0	0	45	11.25	56	14	112	28	187	46.75	87	21.75	67	16.75	98	24.5	146	36.5	2	0.5
Effective student support services	14	3.5	108	27	89	22.25	120	30	69	17.25	2	0.5	89	22.25	78	19.5	109	27.25	122	30.5
Timely held of Seminar Workshop	0	0	45	11.25	78	19.5	135	33.75	142	35.5	0	0	23	5.75	67	16.75	109	27.25	201	50.25
Adequate and effective counseling session/ class	0	0	78	19.5	95	23.75	145	36.25	102	25.5	0	0	13	3.25	78	19.5	178	44.5	131	32.75
Good Governance	52	13	95	23.75	89	22.25	120	30	44	11	0	0	20	5	78	19.5	120	30	182	45.5

** Source : field study

3. 1(e): The comparative view in Conventional/ODL system of education

To study the comparative view of Conventional/ODL mode of education system in relation to quality the investigator has analyzed the following parameters.

4.1.37 Programme is effective

From table 4.9 and figure 4.31 it has been observed that, 23.75% respondents of conventional study were reported as excellent, 27.5% as very good, 30% as good, 17.5% as average, 1.25% as unsatisfactory in programme is effective while in case of ODL system of education 23% as excellent, 26.5% as very good, 28.75% as good, 17% as average and 4.75 % as unsatisfactory as reported by respondents. As a result it can be concluded that theconventional education system is effective than open and distance mode of education.

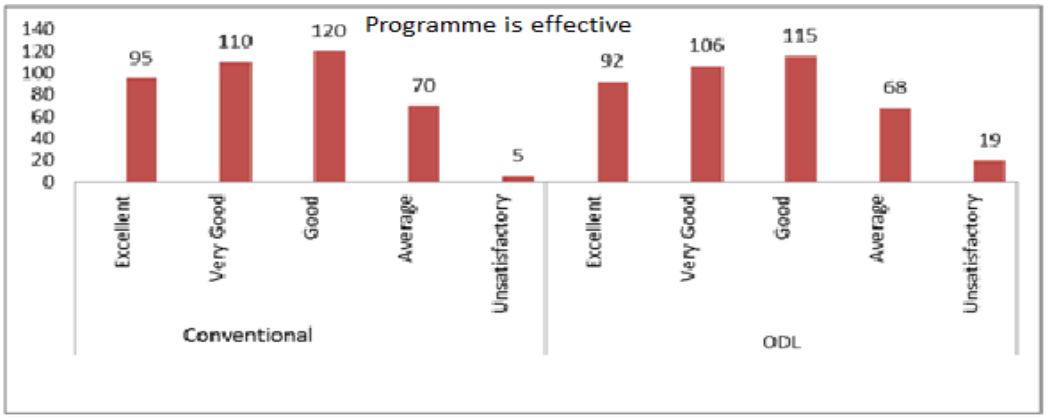


Figure 4.31: Graphical representation of programme is effective in case of comparative view of Conventional/ODL mode of education system.

4.1.38 Economy/Cost effective

From table 4.9 and figure 4.32 it has been observed from percentage table that, no respondents of conventional study reported as excellent, 23.75% as very good,

21% as good, 41.25% as average, 14% as unsatisfactory in economy/cost effective while in case of ODL system of education 40% as excellent, 20% as very good, 36.25% as good, 3.25% as average and 0.5 % as unsatisfactory as reported by respondents. From the analysis, it implies that distance education system has better performance than open and distance mode of education except percentage of good scale.

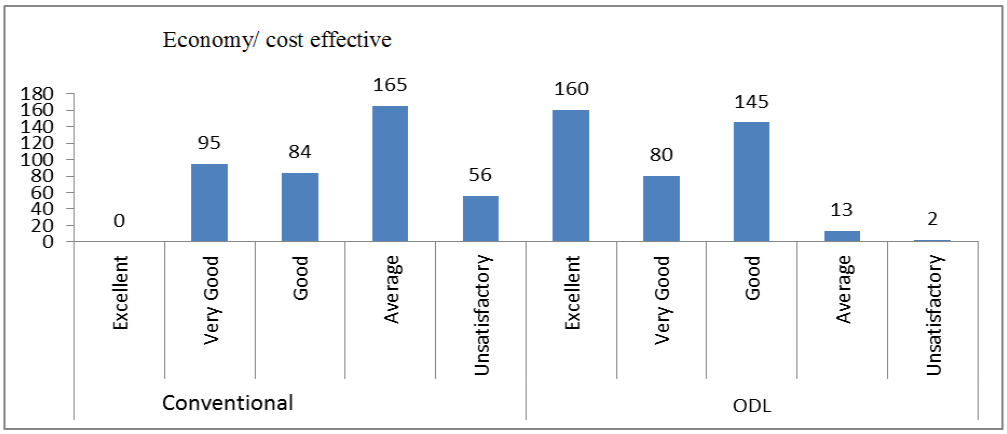


Figure 4.32: Graphical representation of economy/cost effective in case of comparative view of Conventional/ODL mode of education system.

4.1.39 Useful in understanding

From table 4.9 and figure 4.33 it has been revealed from the study that when learners were asked about usefulness in understanding, 21.5% respondents of conventional study reported as excellent, 31.5% as very good, 28% as good, 14.5% as average, 3% are unsatisfactory while in case of ODL system of education 10% as excellent, 26% as very good, 28% as good, 11.5% as average and 24.5% as unsatisfactory reported by respondent. Hence it can be concluded that the conventional education system shows better performance than open and distance mode of education.

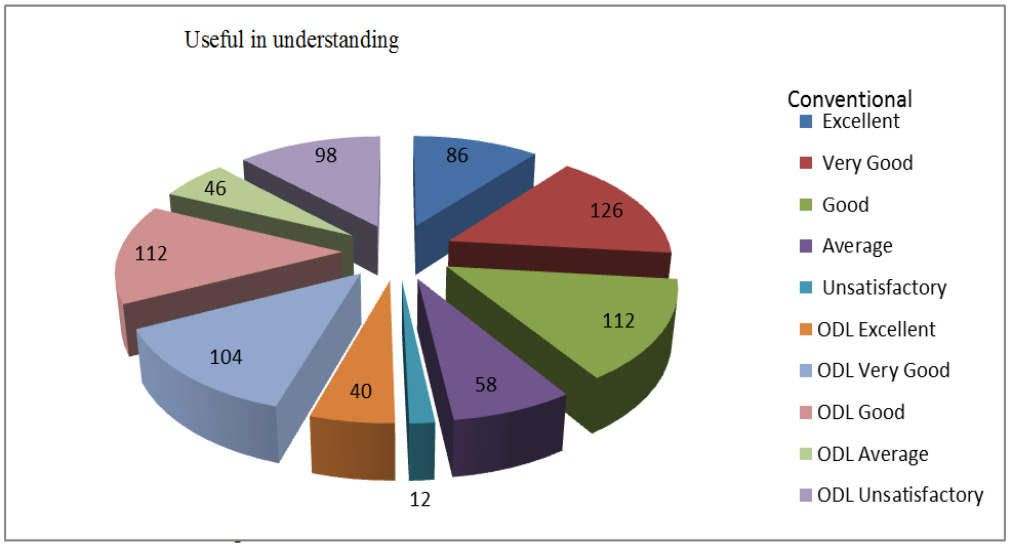


Figure 4.33: Graphical representation of useful in understanding in case of comparative view of Conventional/ODL mode of education system.

4.1.40 Acquisition of more knowledge

From table 4.9 and figure 4.34 it has been found that in acquisition of more knowledge 22.8% respondents of conventional study reported as excellent, 32.25% as very good, 21.8% as good, 11.25% as average, 12% are unsatisfactory while in case of ODL system of education 20.3% as excellent, 30.25% as very good, 19.5% as good, 10.25% as average and 19.75 % as unsatisfactory as reported by respondents. It implies that the conventional education system shows better performance than open and distance mode of education.

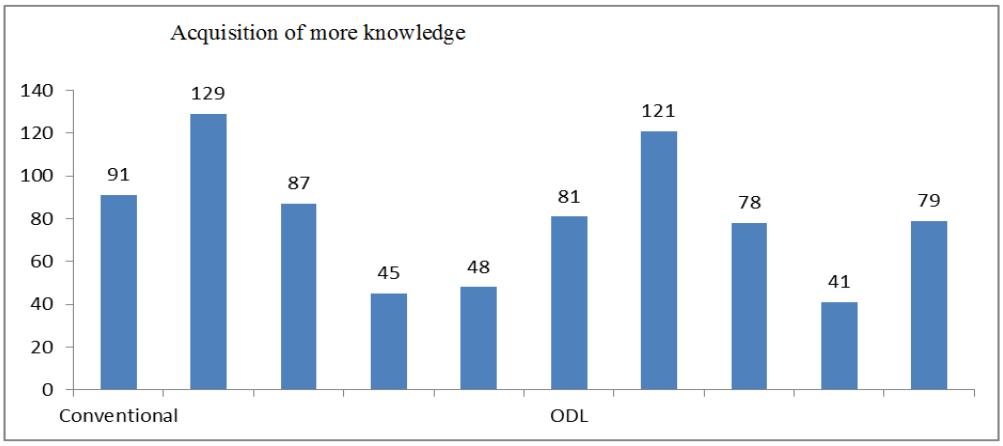


Figure 4.34: Graphical representation of acquisition of more knowledge in case of comparative view of Conventional/ODL mode of education system.

4.1.41 Organized Approaches

From table 4.9 and figure 4.35 in organized approaches, 15% respondents of conventional study reported as excellent, 33.75% as very good, 28% as good, 19.5% as average, 3.75% are unsatisfactory while in case of ODL system of education 5.25% as excellent, 19.5% as very good, 25.25% as good, 16.75% as average and 33.25 % as unsatisfactory as reported by respondents. From the observation it can be concluded that the conventional education system shows better performance than open and distance mode of education system.

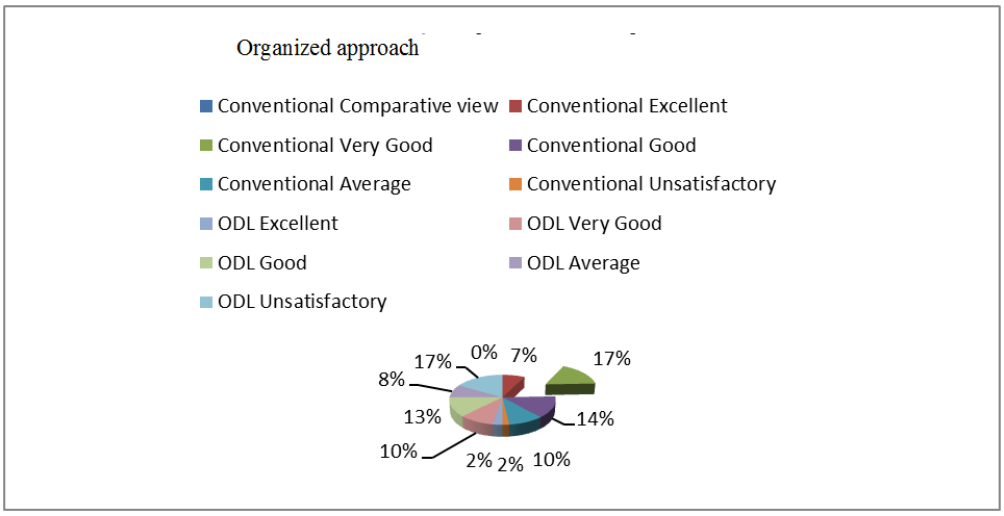


Figure 4.35: Graphical representation of Organized Approaches in case of comparative view of Conventional/ODL mode of education system.

4.1.42 Easy access to communicate

It has been observed from table 4.9 and figure 4.36 that, 22.5% respondents of conventional study reported as excellent, 31.75% as very good, 22.5% as good, 16.75% as average, 6.5% are unsatisfactory in case of easy access to communicate while in ODL system of education 5% as excellent, 19.5% as very good, 20.25% as good, 19.75% as average and 35.5 % as unsatisfactory as reported by respondents. From the analysis, it implies that the conventional education system shows better performance than open and distance mode of education.

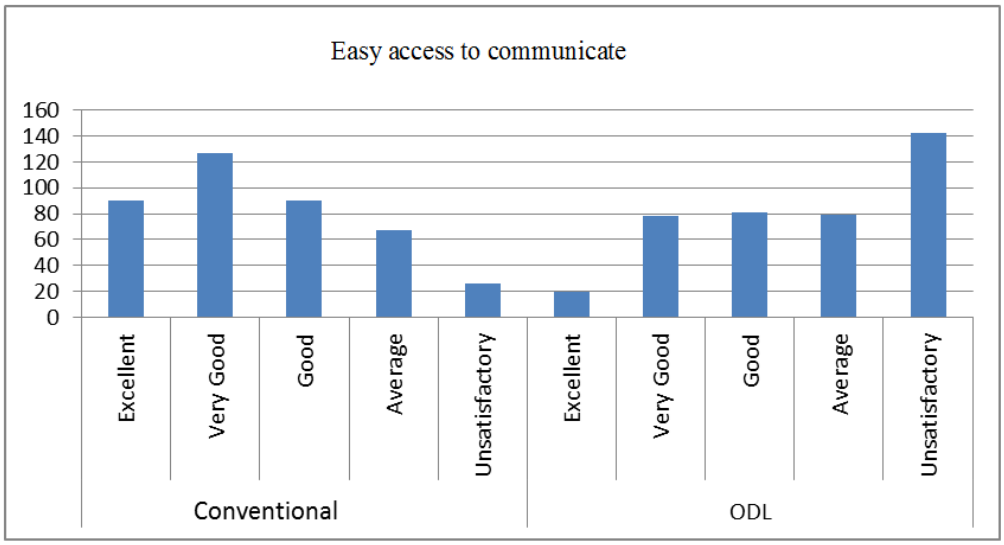


Figure 4.36: Graphical representation of easy access to communicate in case of comparative view of Conventional/ODL mode of education system.

4.1.43 Effective use of ICT

It has been observedfrom table 4.9 and figure 4.37 that no respondents of conventional study reported as excellent, 11.25% as very good, 23.8% as good, 11.75% as average, 53.25% are unsatisfactory in effective use of ICT while there is no one respondence as excellent, 14% as very good, 16.75% as good, 20.25% as average and 49% as unsatisfactory as reported by respondent in case of ODL system of education and it can be concluded that the conventional mode of education system shows better performance than open and distance mode of education.

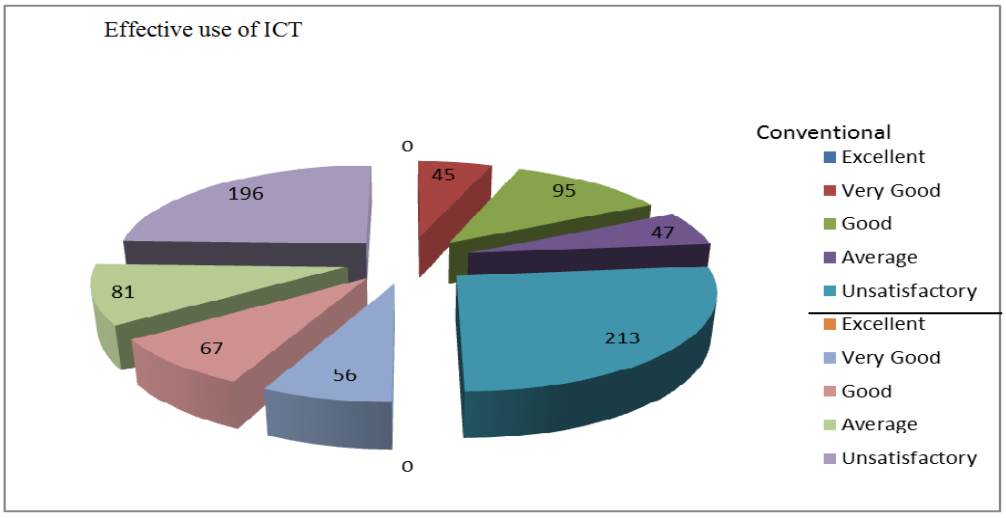


Figure 4.37: Graphical representation of effective use of ICT in case of comparative view of Conventional/ODL mode of education system.

4.1.44 Effectiveness of SLM

From table 4.9 and figure 4.38 in case of effectiveness of SLM, no respondents of conventional study reported as excellent, 11.25% as very good, 14% as good, 28% as average, 46.75% are unsatisfactory in effective SLM while 21.8% as excellent, 16.75% as very good, 24.5% as good, 36.5% as average and 0.5 % as unsatisfactory as reported by respondents in case of ODL system of education. From the analysis, it can be concluded that the ODL education system shows better performance than conventional mode of education.

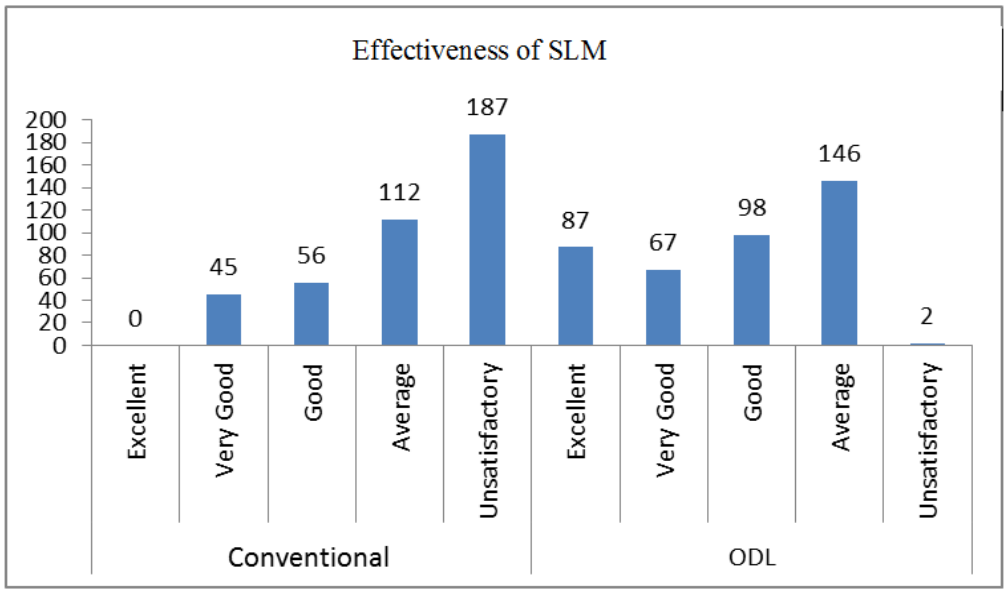


Figure 4.38: Graphical representation of effectiveness of SLM/print audio-visual in case of comparative view of Conventional/ODL mode of education system.

4.1.45 Effective student support services

From table 4.9 and figure 4.39it has been found that 3.5% respondents of conventional study reported as excellent, 27% as very good, 22.3% as good, 30% as average, 17.25% are unsatisfactory in effective student service system while in case of ODL system of education 0.5% as excellent, 22.25% as very good, 19.5% as good, 27.5% as average and 30.5 % as unsatisfactory as reported by respondents and it implies that the ODL education system shows better performance than conventional mode of education.

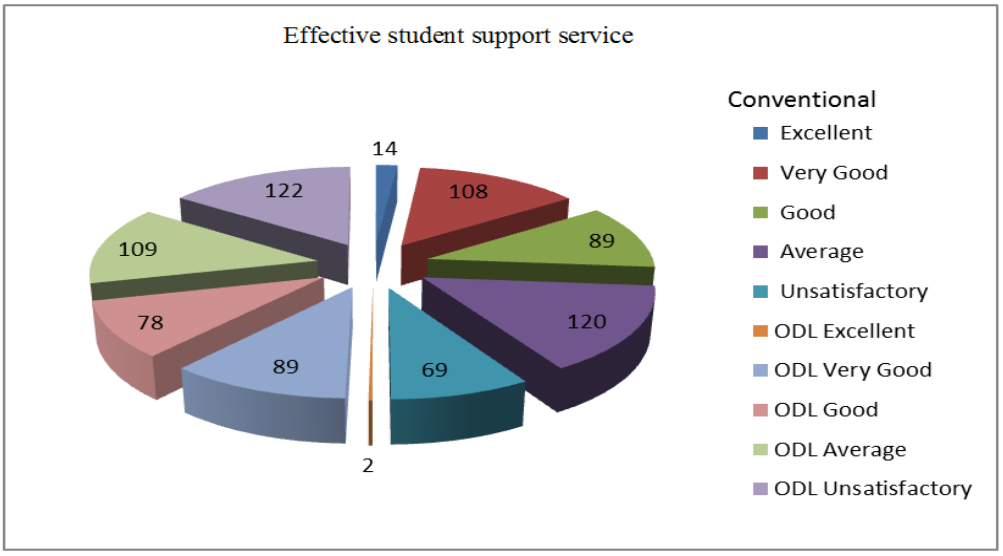


Figure 4.39: Graphical representation of effective student support system in case of comparative view of Conventional/ODL mode of education system.

4.1.46 Timely holding of seminar/workshop

From table 4.9 and figure 4.40 it has been observed that there were no respondents of conventional study who were reported as excellent, 11.25% were reported as very good, 19.5% as good, 33.75% as average, 35.5% are unsatisfactory in timely held seminar/workshop while in ODL system of education no one respondence as excellent, 5.75% as very good, 16.75% as good, 27.25% as average and 50.25 % as unsatisfactory as reported by respondents and results implies that the conventional education system shows better performance than open and distance mode of education.

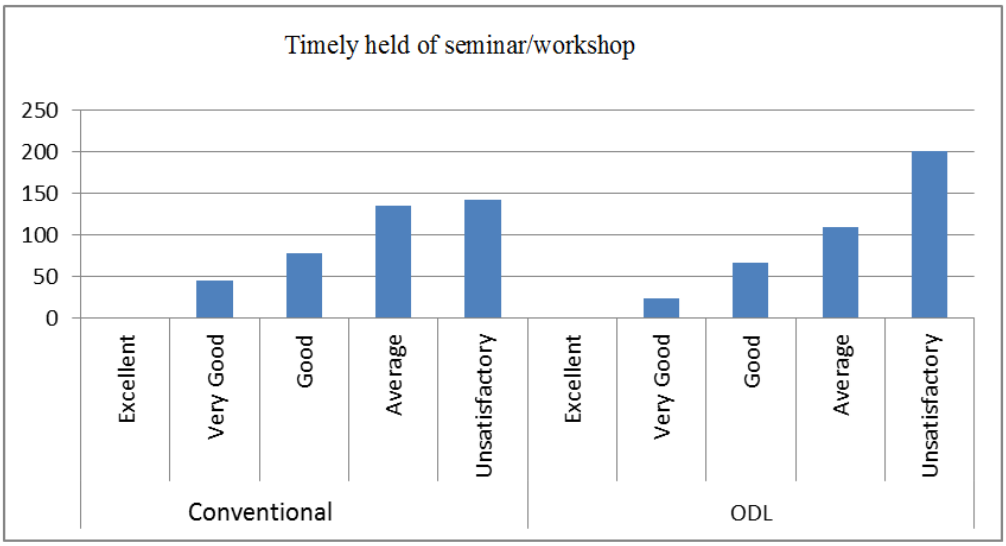


Figure 4.40: Graphical representation of timely holding of seminar/ workshop in case of Conventional/ODL mode of education system.

4.1.47 Adequate and effective counseling session/class

From table 4.9 and figure 4.41 it has been observed that in case of adequate and effective counseling session/class no respondents of conventional study reported as excellent, 19.5% as very good, 23.8% as good, 36.25% as average, 25.5% are unsatisfactory while no one is reported as excellent, 3.25% as very good, 19.5% as good, 44.5% as average and 32.75% as unsatisfactory as reported by respondents. As a result it can be concluded that the conventional education system shows better performance than open and distance mode of education except in average percentage.

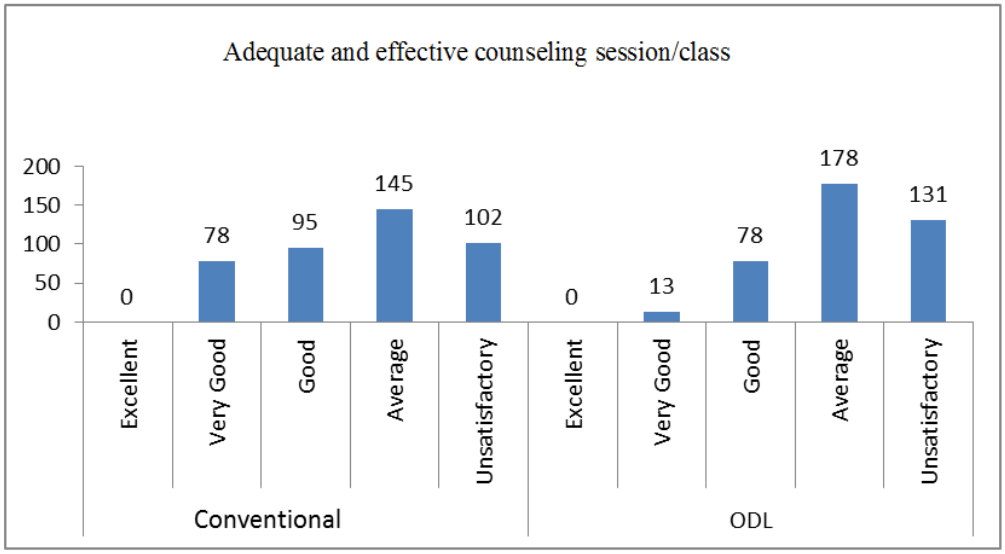


Figure 4.41: Graphical representation of adequate and effective counseling session/class in case of comparative view of Conventional/ODL mode of education system.

4.1.48 Good governance

From table 4.9 and figure 4.42 From the observation, it hasbeen found that, 13% respondents of conventional study reported as excellent, 23.75% as very good, 22.3% as good, 30% as average, 11% are unsatisfactory in good governance while in ODL system, no one is reported as excellent, 5% as very good, 19.5% as good, 30% as average and 45.5 % as unsatisfactory as reported by respondents. Hence it implies that the conventional education system shows better performance than open and distance mode of education except in average percentage.

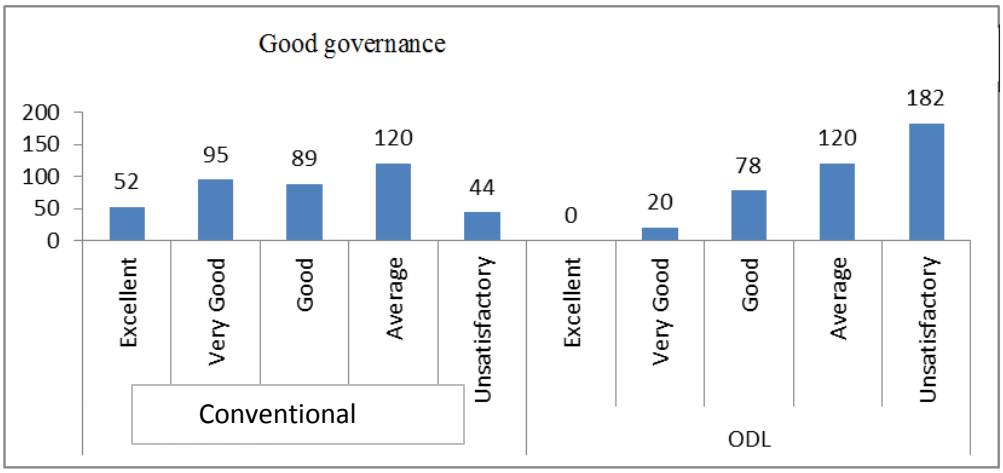


Figure 4.42: Graphical representation of Good governance in case of comparative view of Conventional/ODL mode of education system.

4.1.49 Test of Hypothesis

H5:There is no significant difference between the comparative views in Conventional/ODL mode of education system.

T-Test:

Table 4.10: t-value for the comparative view in conventional/ ODL system of education from learner's point of view

Course	N	Mean	Sd. Deviation	t	df	Sig.
CONVENTIONAL	400	33.87	5.305	7.309	798	.000**
ODL	400	31.43	4.054			

**Significant level is at P<0.01

The graphical representation of the mean value of T-test for the comparative view in Conventional/ODL system of education from learner's point of view is as given below:

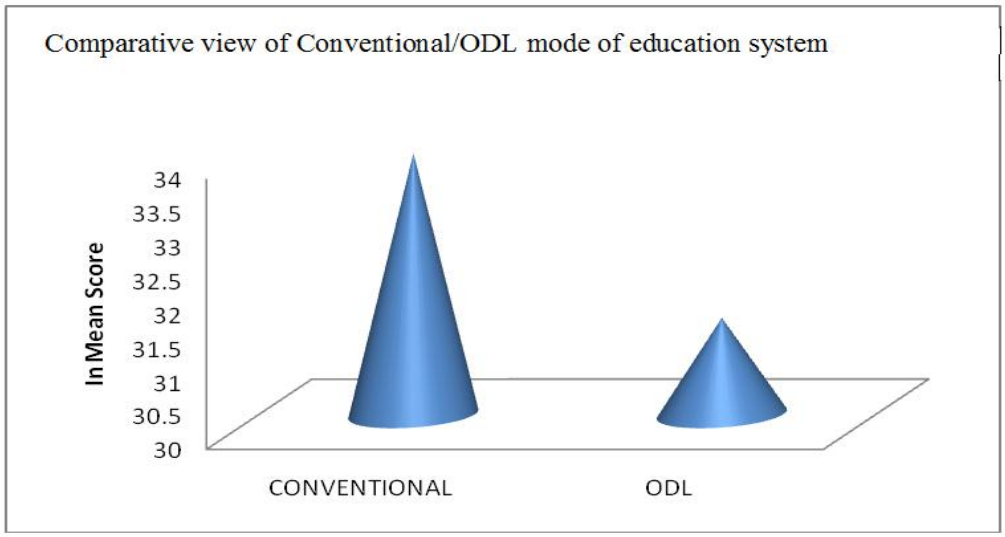


Figure 4.43: Graphical representation of the mean value of T-test for the comparative view in comparative view of Conventional/ODL system of education system.

4.1.51 Observation**:**From table 4.10 and figure 4.43 it has been observed from the above table that in comparative view of Conventional/ ODL mode of education system, the mean scores 33.87 and 31.43, SD are 5.305 and 4.054 respectively. The t-value is 7.309, 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 comparative view of the conventional course is higher than comparative view of ODL courses. Thus, the hypothesis can be rejected.

1 (f) Comparative view in respect of Examination system

Table : 4.11 - Data representing the percentage of the response of the learners in comparative view of the Conventional / ODL mode of education system in respect of examination system

Comparative view in respect of examination system	Conventional										ODL									
	Excellent		Very Good		Good		Average		Unsatisfactory		Excellent		Very Good		Good		Average		Unsatisfactory	
	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%
Timely holding of examination	45	11.25	155	38.75	140	35	35	8.75	25	6.25	35	8.75	135	33.75	129	32.25	30	7.5	71	17.75
Timely declaration of results	10	2.5	175	43.75	165	41.25	40	10	10	2.5	8	2	160	40	150	37.5	55	13.75	27	6.75
Transparent examination system	45	11.25	160	40	155	38.75	35	8.75	5	1.25	35	8.75	150	37.5	145	36.25	30	7.5	40	10

** Source : field study

4.1.(f) Comparative view of Conventional/ODL in respect of examination

To study the comparative view in Conventional/ODL system of education from learner's point of view in respect of examination system the investigator has analyzed the following parameters.

4.1.51 Timely holding of examination

From table 4.11 and figure 4.44 it has been observed that, 11.3% respondents of conventional study reported as excellent, 38.75% as very good, 35% as good, 8.75% as average, 6.25% are unsatisfactory in timely holding of examination while in case of ODL system of education 8.75% as excellent, 33.75% as very good, 32.25% as good, 7.5% as average and 17.75 % as unsatisfactory as reported by respondents. From the analysis, it can be concluded that the conventional education system shows better performance than open and distance mode of education.

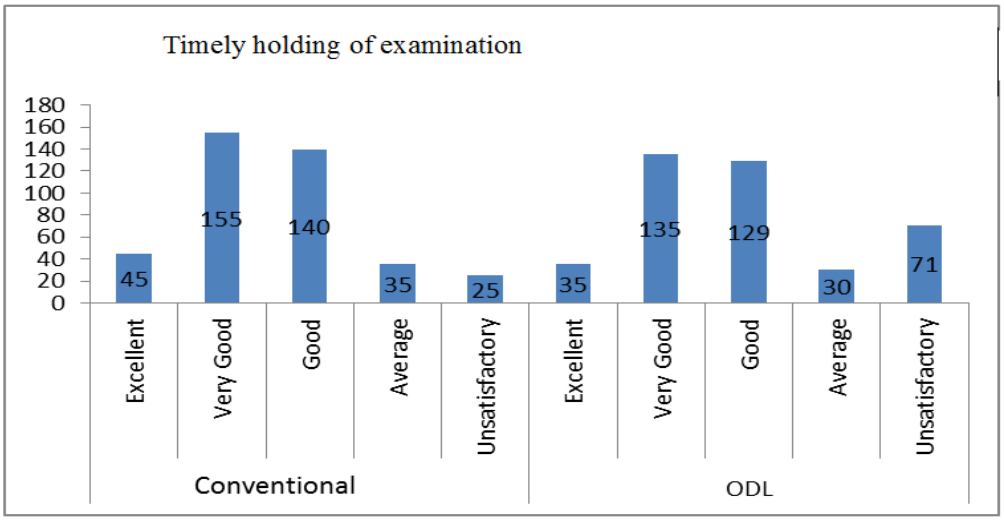


Figure 4.44: Graphical representation of timely holding of examination in case of Conventional/ODL mode of education system.

4.1.52 Timely declaration of results

From table 4.11 and figure 4.45 in case of timely declaration of results, it has been found that 2.5% respondents of conventional study reported as excellent, 43.75% as very good, 41.3% as good, 10% as average, 2.5% are unsatisfactory while in ODL system of education 2% as excellent, 40% as very good, 37.5% as good, 13.75% as average and 6.75 % as unsatisfactory as reported by respondents. As a result it implies that the conventional education system shows better performance than open and distance mode of education.

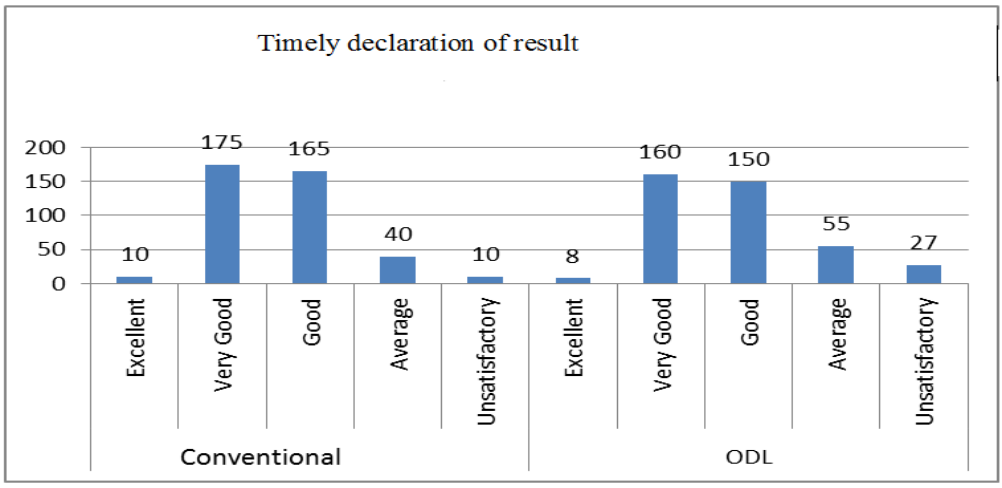


Figure 4.45: Graphical representation of timely declaration of result of examination in case of Conventional/ODL mode of education system.

4.1.53 Transparency of Examination system

From table 4.11 and figure 4.46 it has been found that 11.3% respondents of conventional study reported as excellent, 40% as very good, 38.8% as good, 8.75% as average, 1.25% are unsatisfactory in transparency of examination system while in case of ODL system of education 8.75% as excellent, 37.5% as very good, 36.25% as good, 7.5% as average and 10 % as unsatisfactory as

reported by respondents. Hence it implies that the conventional education system shows better performance than open and distance mode of education.

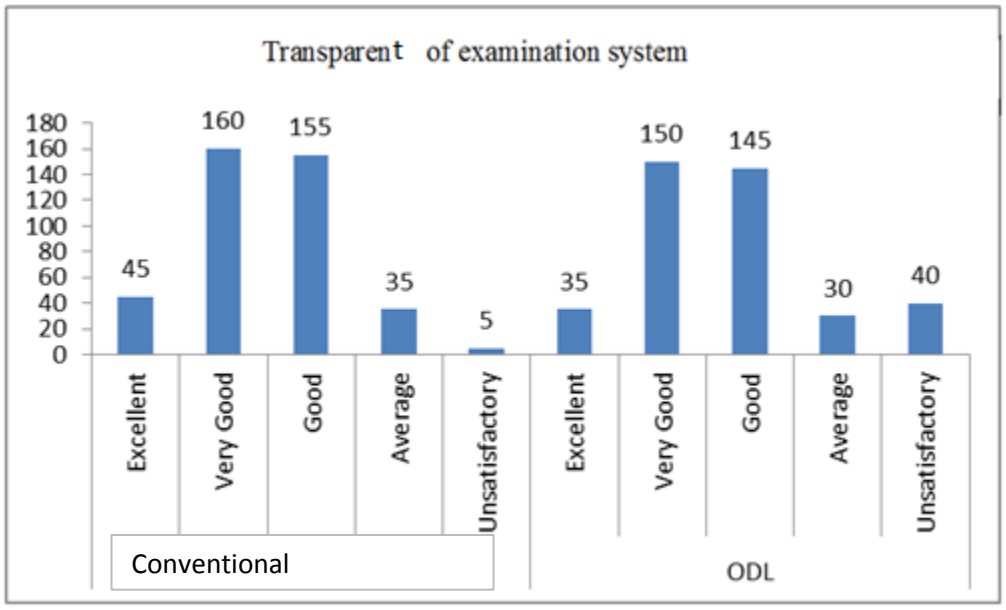


Figure 4.46: Graphical representation of transparency of examination system in case of Conventional/ODL mode of education system.

4.1.54 Test of hypothesis

H6: There is no significant difference betweenConventional/ODL mode of education system in comparative view in case of examination system.
T-Test:

Table 4.12: t-value for comparative view in Conventional/ODL mode of education in respect to examination system from learner's point of view

Course	N	Mean	Sd. deviation	t	df	Sig.
CONVENTIONAL	400	10.15	1.456	5.848	798	.000**
ODL	400	9.53	1.577			

**Significant level is at P<0.01

The graphical representation of the mean value of T-test for the comparative view in Conventional/ODL system of education from learner's point of view in respect of examination system is as given below:

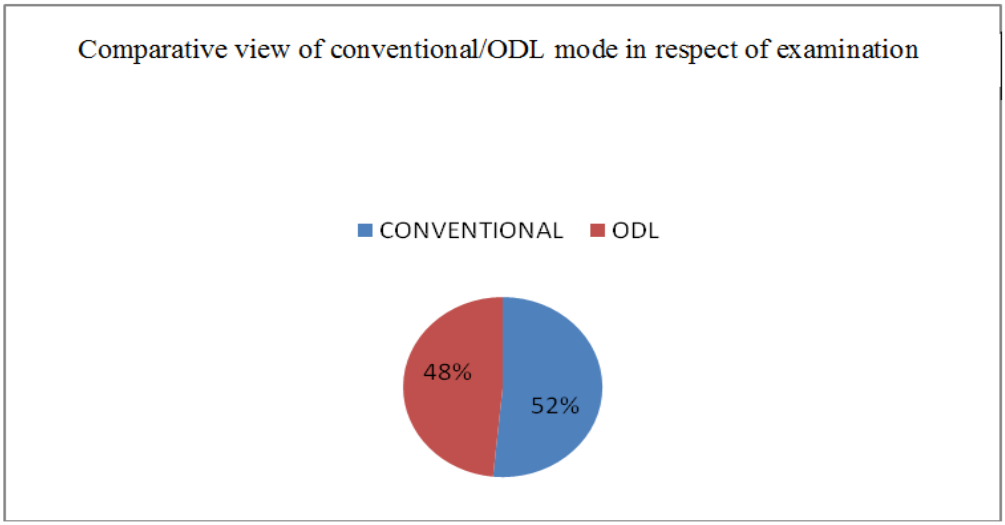


Figure 4.47: Graphical representation of the mean value of T-test for the comparative view in Conventional/ODL system of education in respect of examination system.

4.1.55 Observation**:**From table 4.12 and figure 4.47 it has been observed that in comparative view in case of examination system in Conventional/ ODL mode of education system, the mean scores 10.15 and 9.53, SD are 1.456 and 1.577 respectively. The t-value is 5.848, df=798 and P=0.000 is highly significant at 0.01 level. Hence it can be concluded that the difference is highly significant and the comparative view in respect of examination in conventional course shows better performance than the ODL system. Thus the hypothesis can be rejected.

4.1.56 Learner's attitude towards the quality of the Conventional/ODL mode of education system.

From the above analysis it has been concluded as under in relation to learner's attitude towards the quality of the conventional/ODL mode of education system:

In case of structure of the course, it has been found that the following parameters, like clear learning goal, realistic learning goal, comprehensive analysis of cognitive fields, help in skill development, cater for a holistic development of the fields, content goal relation has better performance in conventional mode of education system while in case of ODL system of education the parameters, like recent literature, adequately connected related fields, interesting subordinate subjects have observed higher response from the respondents.

In case of quality of support given by the teachers/counselors like encouragement in participation, eager to help, guide the comprehension of the learning materials, availability to instruct, watch the progress of learner, feedback with a view to improvement, realized the difficulty and help me out, have higher response from the respondents in case of conventional education system while in case of ODL there is no positive response from the respondent in learners point of view.

It has been observed that in case of quality of teachers/counselors the following parameters like scientific background, emphasised on analytical thinking, teaching capability,instructional thoroughness of the learning material has higher response in case of conventional education system while in teaching capability, ability to communicate knowledge it has higher positive response from ODL respondents.

It has been implied that in case of quality of learning experience from the study that the following parameters of conception from SLM/ Text book, support

provided by the teachers/Counselor, and teachers/counselors quality has higher priority in conventional mode of education while in benefit from assignment gets the higher priority in ODL respondents.

Similarly in case of comparative view from learners point of view it has been observed the following parameters like program is effective, useful in understanding, acquisition of more knowledge, organized approach, easy access to communication, effective student support system, timely holding of seminar/ workshop, adequate and effective counseling session and good governance has higher priority in conventional mode of education while in economy/cost effectiveness, effective use of information and communication system, effective SLM has the higher priority in case of ODL system from the respondents point of view. Again in case of examination system timely holding of examination, timely declaration of results and transparency, conventional respondent has given more priority thanODL respondents.

4.1.57 Test of Hypothesis

H7:-There is no significant difference between Conventional/ODL mode of education system in case of learner's attitude towards the quality of Conventional/ ODL system of education.

T-Test: Towards the quality of learners attitude of Conventional/ODL system of education system from learner's point of view:

Table 4.13: t-value towards the quality of learners attitude of Conventional/ODL mode of education system.

Courses	N	Mean	Std. Deviation	t-value	Df	Sig. (2-tailed)
CONVENTIONAL	400	129.17	7.896	30.217	798	.000**
ODL	400	112.35	7.852			

**Significant level is at P<0.01

The graphical representation of the mean value of T-test for the learners attitude towards the quality of conventional/ODL mode of education system is as given below:

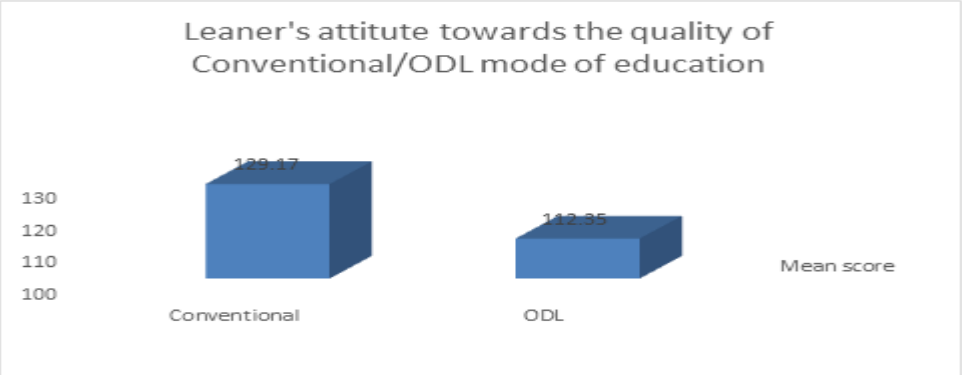


Figure 4.48: Graphical representation of the mean value of T-test for the learners attitude towards the quality of Conventional/ODL mode of education system.

4.1.58 Observation**:**From table 4.13 and figure 4.48 in case of learner's attitude towards the quality of the conventional/ODL system of education the above table reveals that in both the system of courses i.e. Conventional and ODL has the mean scores 129.17 and 112.35, SD are 7.896 and 7.852 respectively. The t-value is 30.217, 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 learner's attitude towards the quality of conventional system of education is higher than ODL system of education .Thus, the hypothesis can be rejected.

Table 4.14: Data representing the percentage of the response to find out the reason of joining Conventional/ODL mode of education system from learner's point of view

	Yes				No			
Reason for joining	No of respondent conventional	%	No of respondent ODL	%	No of respondent	%	No of reaponden t ODL	%
Economic	12	3	350	87.5	388	97	50	12.5
No-age bar-	0	0	400	100	400	100	0	0
Give quality education-	400	100	280	70	0	0	120	30
Procedural delay-	120	30	290	72.5	280	70	110	27.5
Counselling /class not compulsory-	120	30	400	100	280	70	0	0
Provide exam oriented education-	360	90	210	52.5	40	10	190	47.5
Systematic regular study-	360	90	40	10	40	10	360	90
Chances to get good job through campus interview-	280	70	80	20	120	30	320	80
Provide opportunity for extra curricular activities	360	90	160	40	40	10	240	60
Essay to get admission-	280	30	320	80	280	70	80	20
Provide learning opportunity while you earn-	120	80	320	80	80	20	80	20
Provide excellent study materials and other support services-	320	100	310	77.5	0	0	90	22.5
Offer valid degree-	400	40	240	60	240	60	160	40
Self learning is innovative and creative-	160	0	290	72.5	400	100	110	27.5
Flexibility of time-	0	52.5	270	67.5	190	47.5	130	32.5
Non Availibilty of the course	210	52.5	210	52.5	270	67.5	190	47.5

4.2: To find out the reasons of joining Conventional/ODL mode of education system

To study the reasons of joining (conditions of joining) Conventional/ODL mode of education system the investigators analyzed the following parameters.

4.2.1 Economic

From table 4.14 and figure 4.49 it has been found that in conventional mode of education, 3% respondents of conventional mode of study reported as positive in case of economic and 97% as negative while in ODL mode 87.5% as positive and 12.5% reported as negative. Hence it has implied that the ODL education system shows better performance than Conventional mode of education.

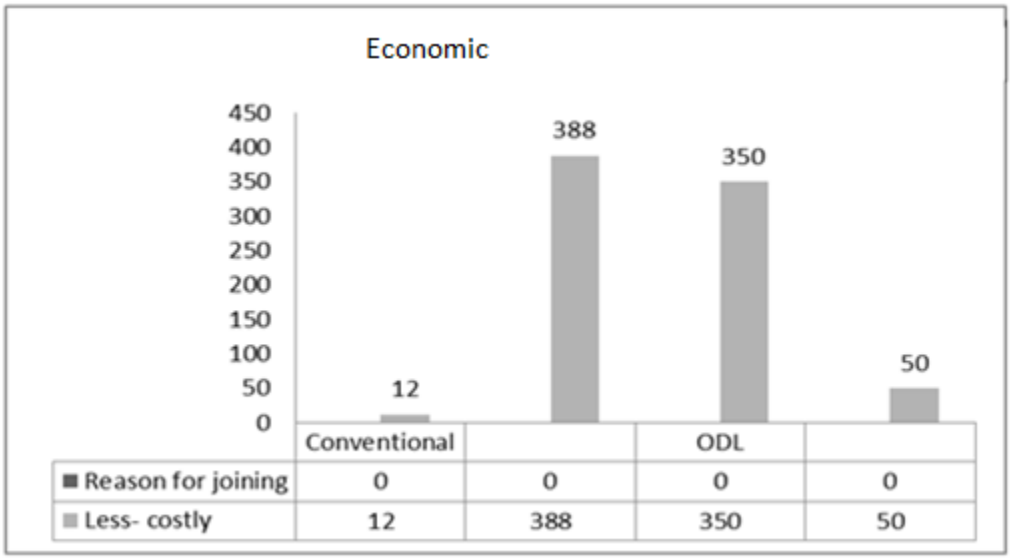


Figure 4.49: Graphical representation of economic in case of joining to Conventional /ODL mode of education system.

4.2.2 Age No bar

From table 4.14 and figure 4.50 it is observed that in case of no age bar all respondents of conventional education system reported as negative while in ODL mode 100% as positive and no one is reported as negative . Thus it can be concluded that the ODL education system has shown better performance than convetional education system.

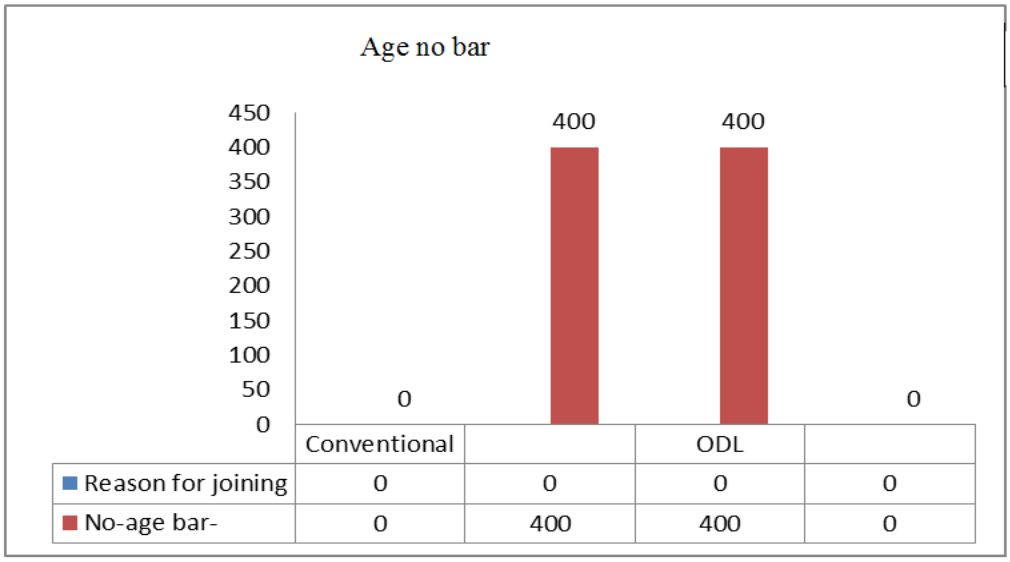


Figure 4.50: Graphical representation of age no bar in case of joining to Conventional/ODL mode of education system.

4.2.3 Quality Education

It has been found from table 4.14 and figure 4.51 that conventional mode of education, all the respondents of conventional mode of study reported as positive in case of quality education while in ODL mode 70% as positive and 30% reported as negative respondents and as a result it has implied that the conventional education system shows better performance than open and distance mode of education.

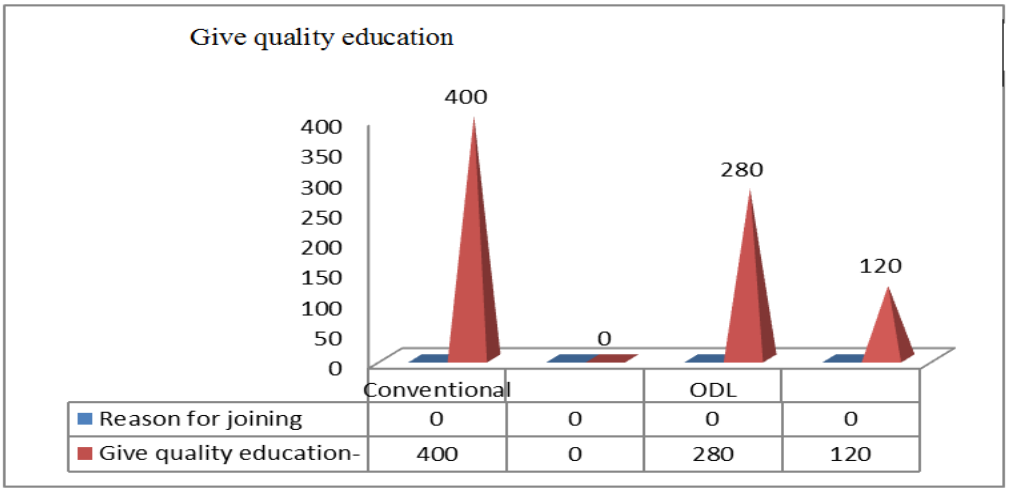


Figure 4.51: Graphical representation of give quality education in case of joining to Conventional/ODL mode of education system.

4.2.4 Procedure delay

From table 4.14 and figure 4.52 in conventional mode of education, it has been found that 30% respondents of conventional mode of study reported as positive in case of procedure delay and 70% as negative while in ODL mode 72.5% as positive and 27.5% reported as negative respondents. From the observation it can be concluded the ODL education system shows better performance than conventional mode of education.

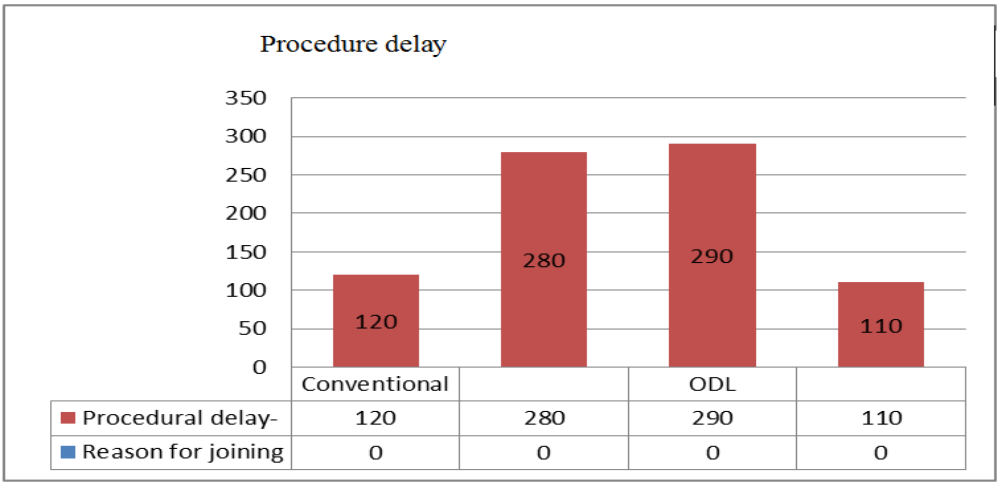


Figure 4.52: Graphical representation of Procedure delay in case of joining to Conventional /ODL mode of education system.

4.2.5 Counseling/Class not compulsory

From table 4.14 and figure 4.53 in conventional mode of education, it has been found that 30% respondent reported as positive in case of counseling/class not compulsory and 70% as negative while in ODL mode of educationall respondent reported as positive.So it implies that the ODL education system shows better performance than conventional mode of education.

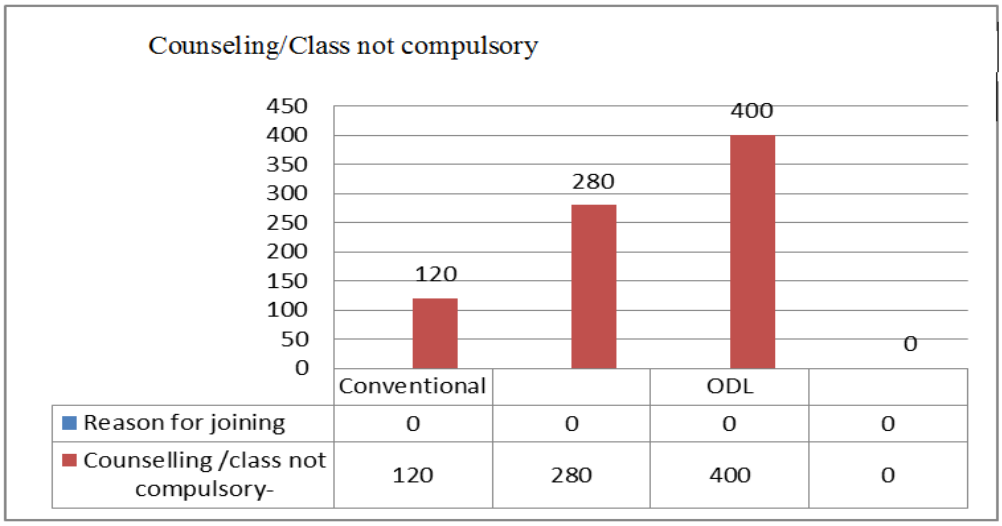


Figure 4.53: Graphical representation of counseling/class not compulsory in case of joining to Conventional /ODL mode of education system.

4.2.6 Provide examination oriented education

It also reveals from table 4.14 and figure 4.54 that in connections to the reasons of joining in ODL/ conventional mode of education, 90% respondents of conventional mode of study reported as positive in case of provide examination oriented education and 10% as negative while in ODL mode 52.5% as positive and 47.5% reported as negative by the respondents. From the observation it implies the conventional education system shows better performance than open and distance mode of education.

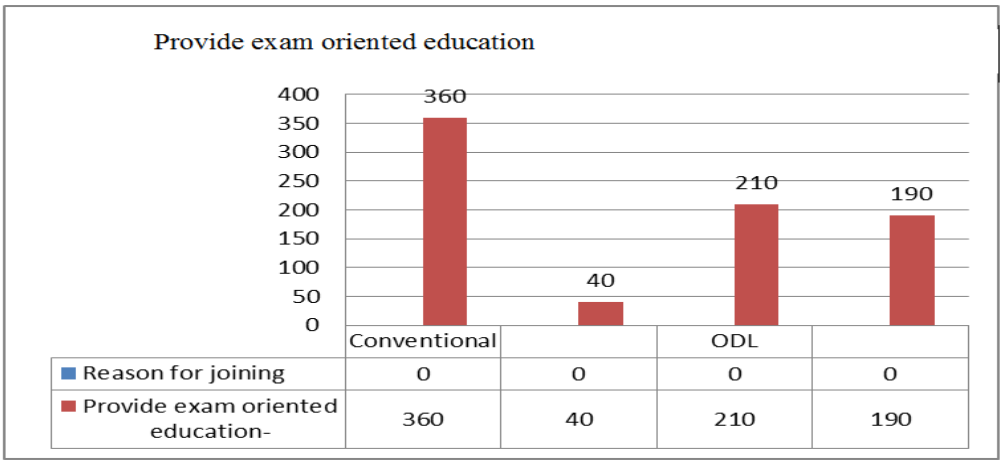


Figure 4.54: Graphical representation of Provide examination oriented education related to the reason of joining in conventional/ ODL mode of education system.

4.2.7 Systematic regular study

From table 4.14 and figure 4.55 it has been observed that in connections to the reasons of joining in ODL/ conventional mode of education, 90% respondents of conventional mode of study reported as positive in case of systematic regular study and 10% as negative while in ODL mode 10% as positive and 90% reported as negative. Hence the conventional education system shows better performance than open and distance mode of education.

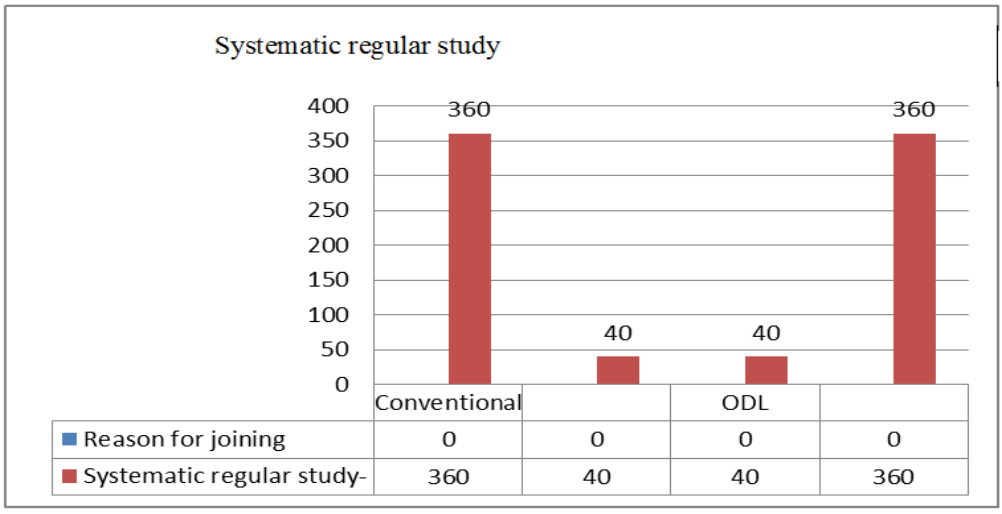


Figure 4.55: Graphical representation of systematic regular study in case of joining to Conventional/ODL mode of education system.

4.2.8 Job through campus interview

From table 4.14 and figure 4.56 it has been found that in connections to the reasons of joining in ODL/ conventional mode of education, 70% respondents of conventional mode of study reported as positive in case of chance to get job through campus interview and 30% as negative while in ODL mode 20% as positive and 80% reported as negative by the respondents. From the observation it implies that the conventional education system shows better performance than open and distance mode of education.

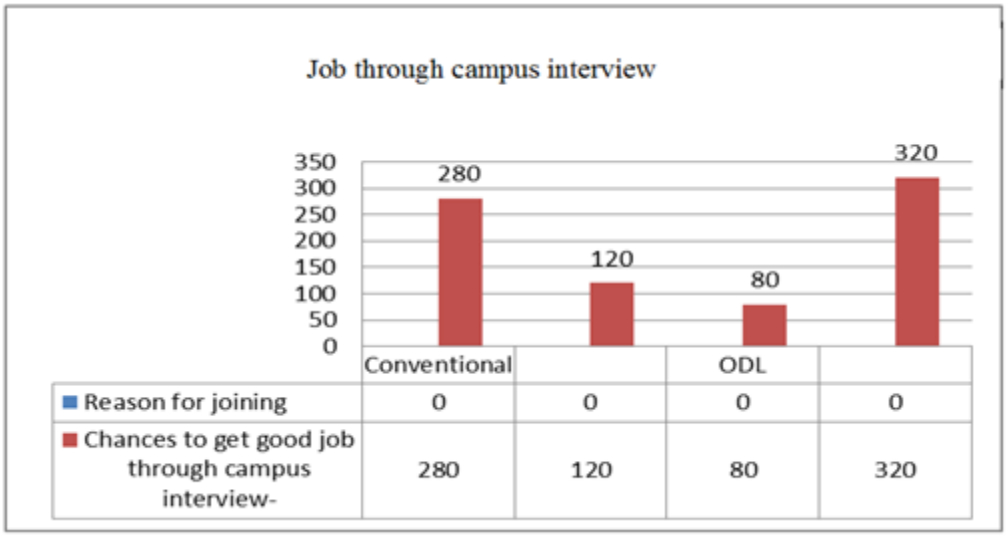


Figure 4.56: Graphical representation of job through campus interview in case of joining to Conventional/ODL mode of education system.

4.2.9 Extra-curricular activities

From table 4.14 and figure 4.57 in case of opportunity for extra-curricular activities it hasbeen observed that, 90% respondents of conventional mode of study reported as positive and 10% as negative while in ODL mode system of education, 40% as positive and 60% reported as negative. From the observation it can be concluded that the conventional education system shows better performance than open and distance mode of education.

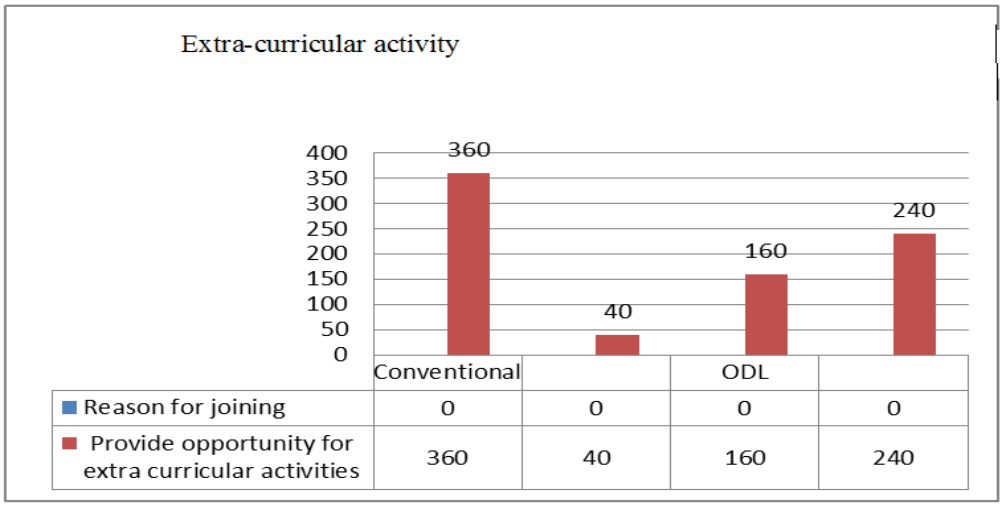


Figure 4.57: Graphical representation of extra-curricular activities in case of joining to Conventional /ODL mode of education system.

4.2.10 Easy to get admission

From table 4.14 and figure 4.58 in conventional mode of education it has been observed that, 30% respondents of conventional mode of study reported as positive in case of easy to get admission and70% as negative while in ODL mode of education, 80% as positive and 20% reported as negative. From the observation it can be concluded that the ODL education system shows better performance than conventional mode of education except average percentage.

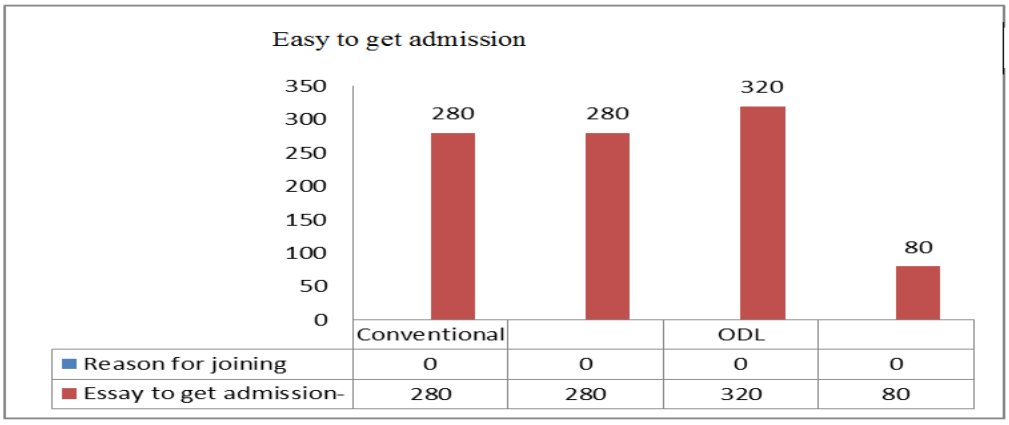


Figure 4.58: Graphical representation of easy to get admission in case of joining to Conventional /ODL mode of education system.

4.2.11 Learning Opportunity

It reveals from table 4.14 and figure 4.59 that in conventional mode of education, 80% respondents of conventional mode of study reported as positive in case of learning opportunity and 20% as negative while in ODL mode 80% as positive and 20% reported as negative. Hence it implies that the ODL education system shows better performance than conventional mode of education.

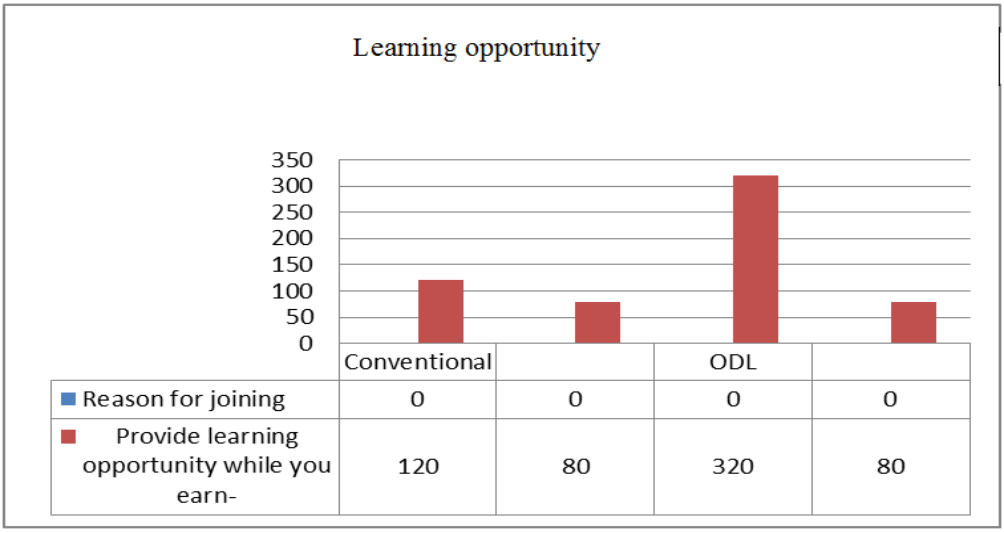


Figure 4.59: Graphical representation of learning opportunity in case of joining to Conventional/ODL mode of education system.

4.2.12 Excellent study material

From table 4.14 and figure 4.60 in conventional mode of education, all respondents of conventional mode of study reported as positive in case of excellent study materials while in ODL mode of education system 77.7% reported as positive and 22.5% reported as negative by the respondents as a result it can be concluded that the conventional education system shows better performance than open and distance mode of education.

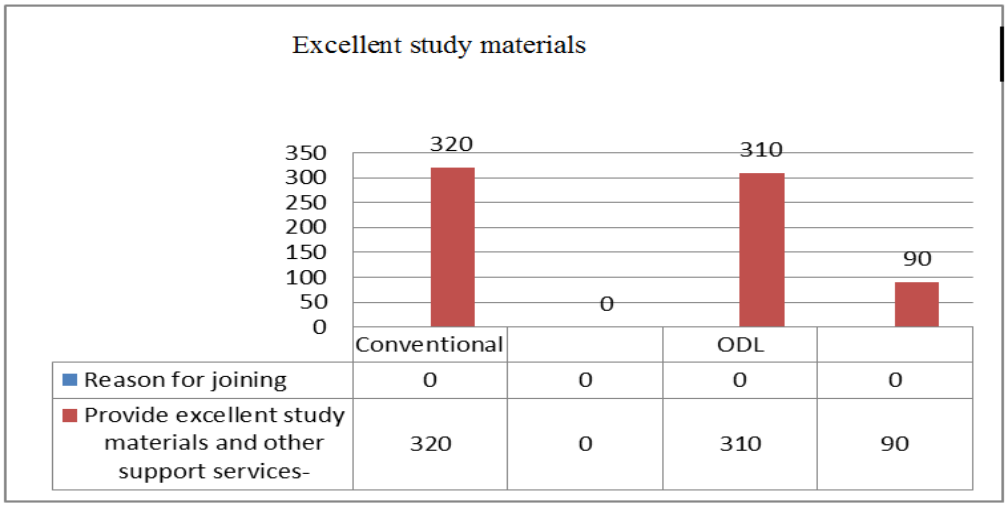


Figure 4.60: Graphical representation of excellent study materials in case of joining to Conventional/ODL mode of education system.

4.2.13 Offer valid degree

From table 4.14 and figure 4.61 in connections to the reasons of joining in conventional mode of education, 40% respondents of conventional mode of study reported as positive in case of offering valid degree and 60% as negative while in ODL mode 60% as positive and 40% reported as negative by the respondents. Hence the resultsimply that the conventional education system shows better performance than open and distance mode of education.

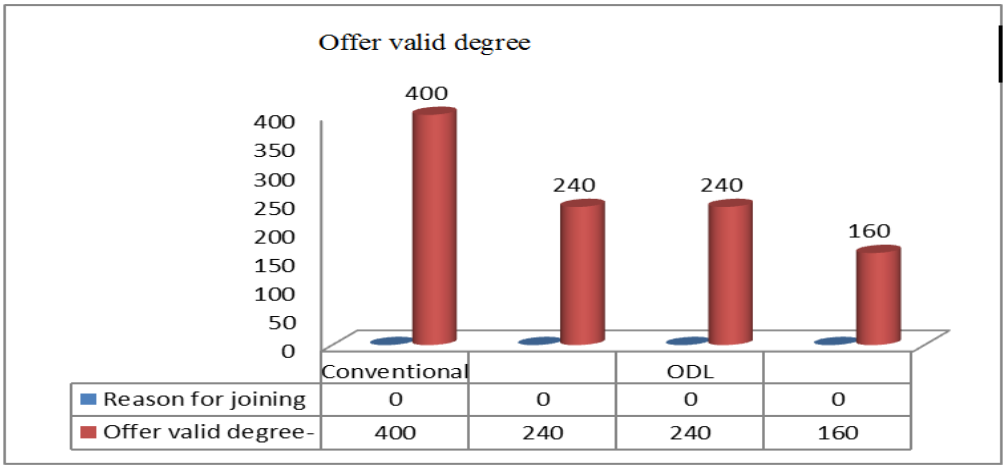


Figure 4.61: Graphical representation of offer valid degree in case of joining to Conventional /ODL mode of education.

4.2.14 Self-learning is innovative and creative

From table 4.14 and figure 4.62 it has been found in connections to the reasons of joining in ODL/ conventional mode of education, no respondents of conventional mode of study reported as positive in case of self-learning is innovative and creative and 100% as negative while in ODL mode 72.5% as positive and 27.5% reported as negative by the respondents and it has implied that the ODL education system shows better performance than conventional mode of education.

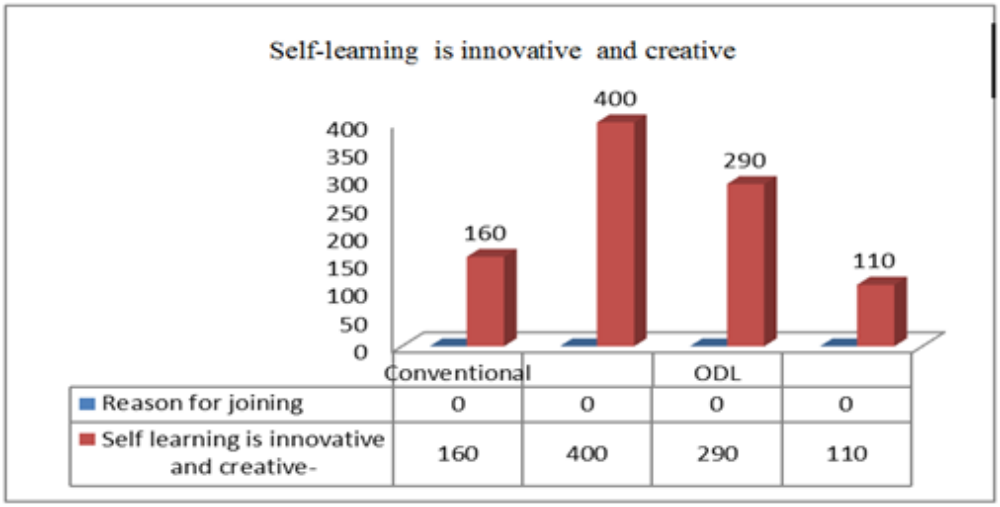


Figure 4.62: Graphical representation of self-learning is innovative and creative in case of joining in conventional/ODL mode of education system

4.2.15 Flexibility of time

From table 4.14 and figure 4.63 in case of flexibility of time, it has been found from the analysis that in connections to the reasons of joining in ODL/ conventional mode of education, 52.2% respondents of conventional mode of study reported as positive and 47.5% as negative while in ODL mode 67.5% as positive and 32.5% reported as negative by the respondents. From the observation it can be concluded that the ODL education system shows better performance than Conventional mode of education.

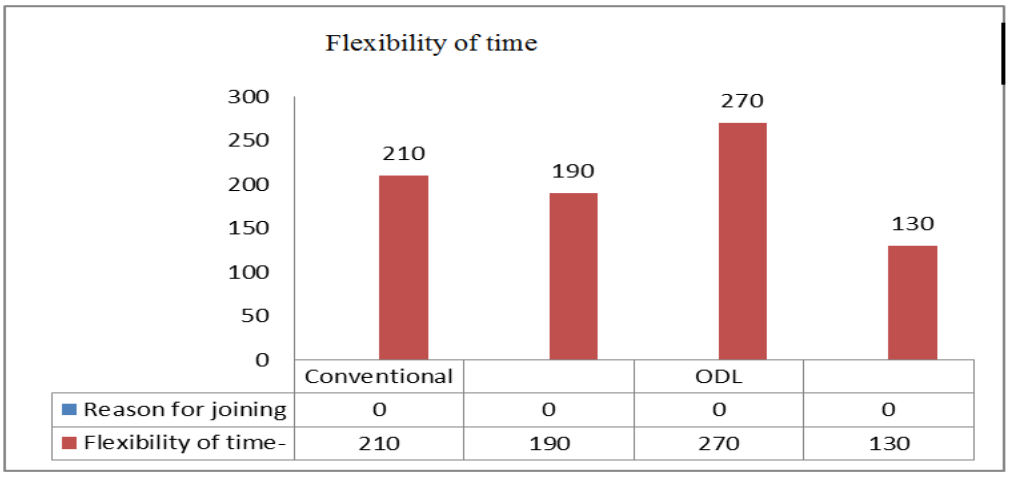


Figure 4.63: Graphical representation of flexibility of time in case of joining to Conventional/ODL mode of education system.

4.2.16 Non availability of course

It reveals from table 4.14 and figure 4.64 that, 52.5% respondents of conventional mode of study reported as positive in case of non-availability of course and 47.5% as negative while in ODL mode 52.5% as positive and 47.5% reported as negative by the respondents. It can be concluded that the conventional education system shows equal performance with open and distance mode of education.

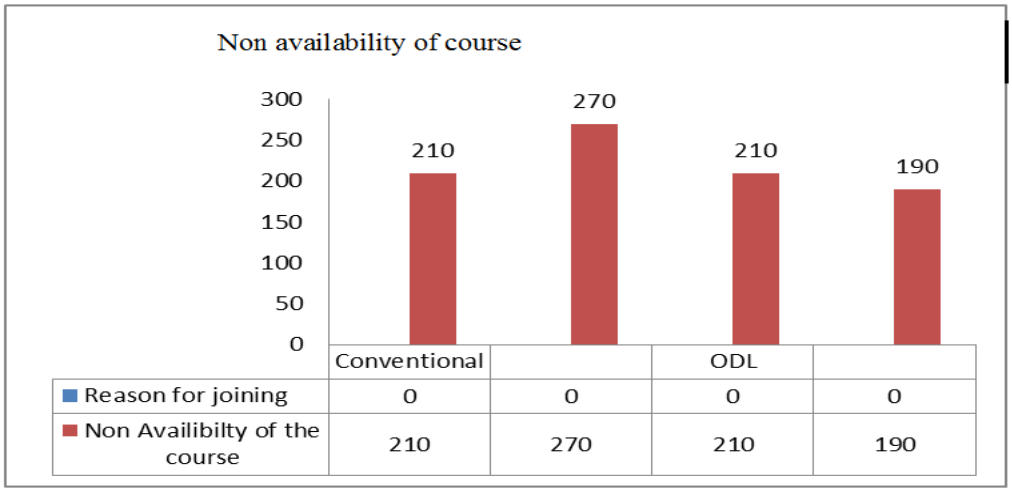


Figure 4.64: Graphical representation of non availability of the course in case of joining to Conventional /ODL mode of education system.

4.2.17 Test of Hypothesis

H8 : There is no significant difference in case of the reasons of joining in Conventional/ ODL mode of education system.

T-Test:

Table 4.15: t-value for joining to conventional/ ODL mode of education system

Course	N	Mean	Sd. Deviation	T	df	Sig.
CONVENTIONAL	400	8.77	3.553	6.829	798	.000**
ODL	400	10.85	4.975			

**Significant level is at P<0.01

The graphical representation of the mean value of T-test for the reason of joining Conventional/ODL mode of education system is as given below:

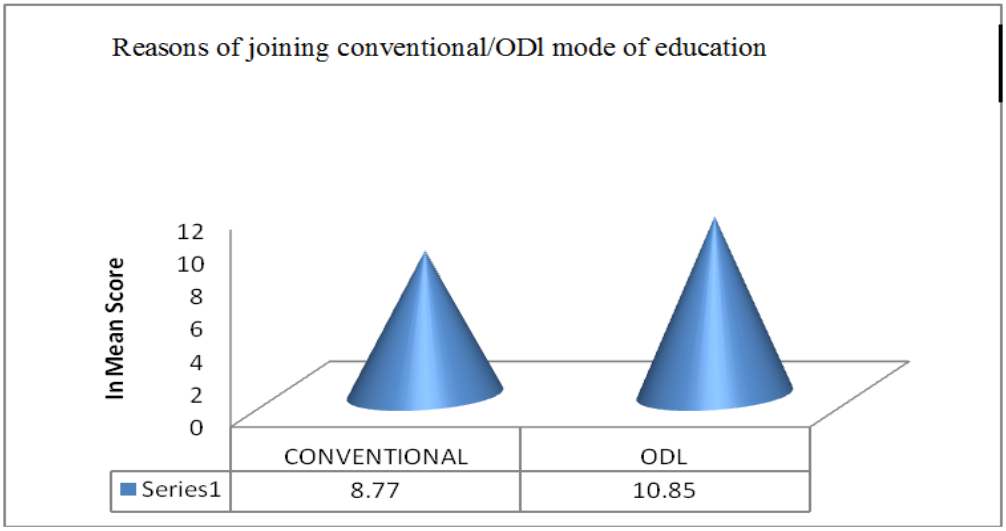


Figure 4.65: Graphical representation of the mean value of T-test for the reasons of joining in Conventional/ODL mode of education system.

4.2.18 Observation**:**From table 4.15 and figure 4.65 it is observed that in case of reasons for joining the above table implies that in both system of courses i.e. Conventional and ODL has the mean scores 8.77 and 10.85, SD are 3.553 and 4.975respectively. The t-value is 6.829, df=798 and P=0.000 is highly significant at 0.01 level. Thus it can be concluded that the reasons of joining (i.e. conditions for joining) to the ODL course is higher than conventional course. Thus, the hypothesis can be rejected.

Objective 3 - To study the effectiveness of study materials/ Text Book

Table : 4.16 - Data representing the percentage of the response to study the effectiveness of study materials / text book of Conventional / ODL mode of education system from learner's point of view.

Intearction of the learning material	Conventional										ODL									
	Excellent		Very Good		Good		Average		Unsatisfactory		Excellent		**Very Good**		Good		Average		Unsatisfactory	
	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%
User Friendly	50	12.5	140	35	120	30	80	20	10	2.5	40	10	152	38	124	31	53	13.25	31	7.75
Real life situation analysis	10	2.5	20	5	40	10	290	72.5	40	10	7	1.75	15	3.75	35	8.75	251	62.75	92	23
Interactive	51	12.75	9	2.25	40	10	210	52.5	50	22.5	29	7.25	8	2	36	9.75	187	46.75	137	34.25
Self - Instructional	31	7.75	40	10	82	20.5	207	51.75	40	10	68	17	56	14	127	31.75	146	36.5	3	0.75
Easy and lucid language	21	5.25	179	44.75	130	32.5	30	7.5	40	10	80	20	125	31.25	156	39	23	5.75	16	4

** Source : field study

4.3: To study the Effectiveness of Study Materials / Text book of Conventional/ODL mode of education system

In this case the investigator has analyzed the following parameters.

4.3.1 User friendly

From table 4.16 and figure 4.66, it has beenobserved that 12.5% respondents of conventional study reported as excellent, 35% as very good, 30% as good, 20% as average, 2.5% are unsatisfactory in user-friendly while in ODL mode of education 10% as excellent, 38% as very good, 31% as good, 13.25% as average and 7.75 % as unsatisfactory as reported by respondents. It can be concluded that the ODL education system shows better performance except excellent percentage than Conventional mode of education.

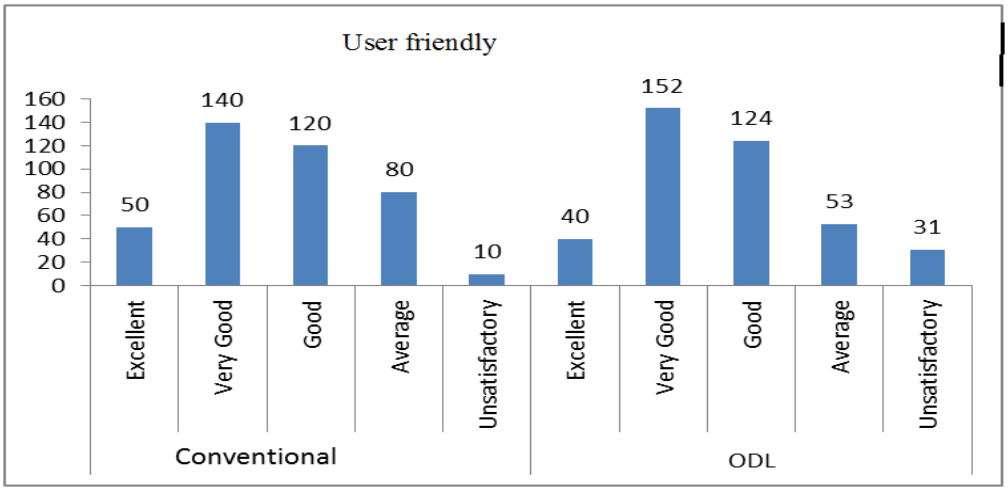


Figure 4.66: Graphical representation of user friendly related to the effectiveness of study materials / text book of Conventional/ODL mode of education system.

4.3.2 Real life situation analysis

From table 4.16 and figure 4.67, in real life situation, 2.5% respondents of conventional study reported as excellent, 5% as very good, 10% as good, 72.5% as average, 10% are unsatisfactory while in ODL system of education 1.75% as excellent, 3.75% as very good, 8.75% as good, 62.75% as average and 23 % as unsatisfactory as reported by respondents. It can be concluded that the conventional education system shows better performance than open and distance mode of education.

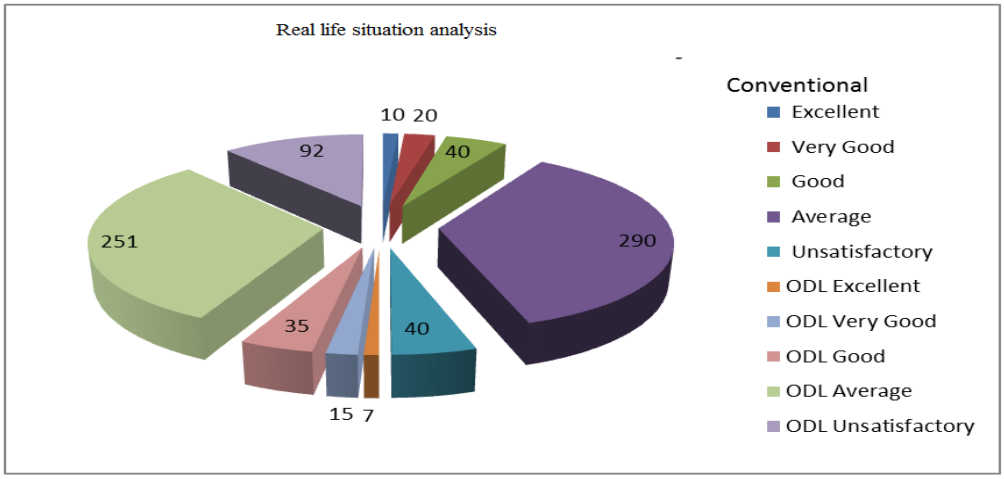


Figure 4.67: Graphical representation of real life situation analysis related to the effectiveness of study materials / text book of Conventional/ODL mode of education system.

4.3.3 Interactive

From table 4.16 and figure 4.68 in connection to interactive, 12.8% respondents of conventional study reported as excellent, 2.25% as very good, 10% as good, 52.5% as average, 22.5% are unsatisfactory while in ODL system of education 7.25% as excellent, 2% as very good, 9.75% as good, 46.75% as average and 34.25 % as unsatisfactory as reported by respondents. Hence the result implies

that the ODL education system shows better performance than conventional mode of education.

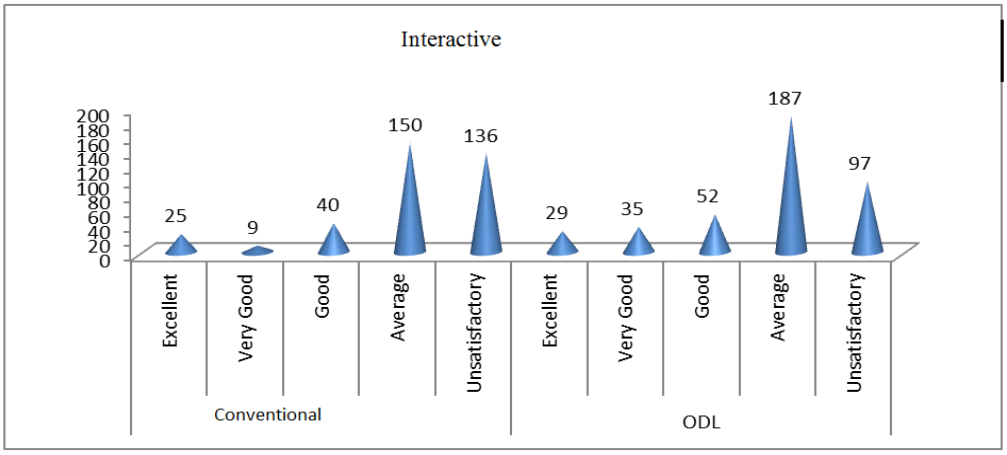


Figure 4.68: Graphical representation of Interactive related to the effectiveness of study materials / text book of Conventional/ODL mode of education system.

4.3.4 Clear self Instructional

From table 4.16 and figure 4.69, in clear self-instructional, 7.75% respondents of conventional study reported as excellent, 10% as very good, 20.5% as good, 51.75% as average, 10% are unsatisfactory while in ODL system 17% as excellent, 14% as very good, 31.75% as good, 36.5% as average and 0.75 % as unsatisfactory as reported by respondents and hence it can be concluded that the ODL education system shows better performance than conventional mode of education.

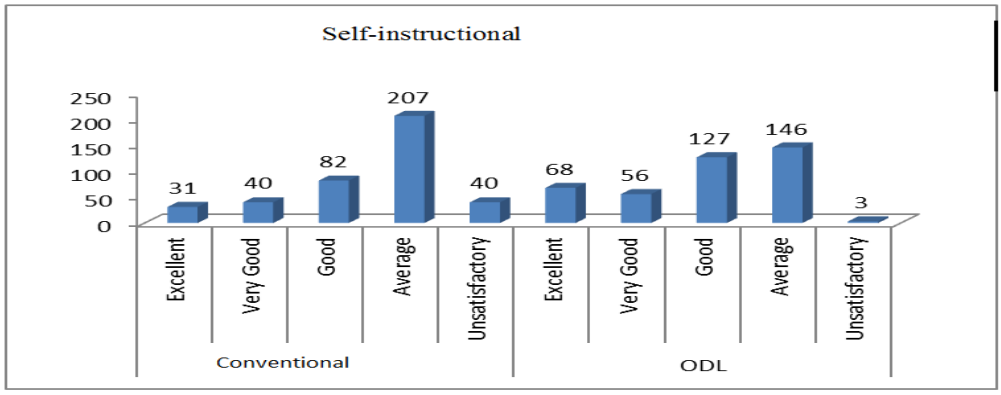


Figure 4.69: Graphical representation of Self Instructional related to the effectiveness of study materials / text book of Conventional/ODL mode of education system.

4.3.5 Easy and lucid language

From table 4.16 and figure 4.70 in Easy and lucid language, 5.25% respondents of conventional study reported as excellent, 44.75% as very good, 32.5% as good, 7.5% as average, 10% are unsatisfactory while 20% as excellent, 31.25% as very good, 39% as good, 5.75% as average and while in ODL system of education, 4% as unsatisfactory as reported by distance learning and it can be concluded that the ODL education system shows better performance than conventional mode of education.

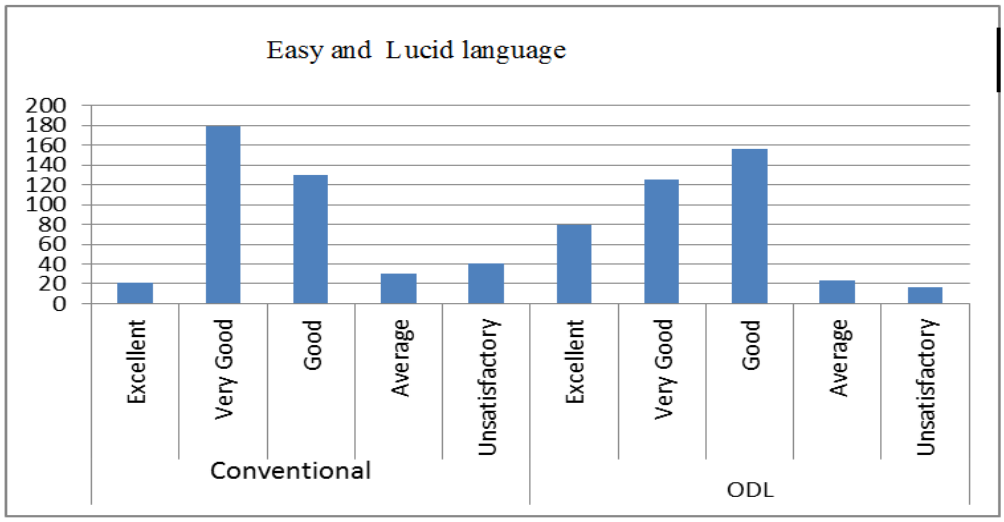


Figure 4.70: Graphical representation of Easy and Lucid language related to the effectiveness of study materials / text book of Conventional/ODL mode of education system.

4.3.6 Test of Hypothesis

H9**:** There is no significant difference in the effectiveness of study materials / text book between ODL and conventional mode of education system.

T-Test:

Table 4.17: t-value for the effectiveness of study materials/text book of conventional/ODL mode of education

Course	N	Mean	Sd. deviation	t	df	Sig.
CONVENTIONAL	400	13.39	2.774	3.069	798	.002**
ODL	400	13.95	2.295			

**Significant level is at P<0.01

The graphical representation of the mean value of T-test for the effectiveness of study materials / text book of Conventional/ODL mode of education from learner's point of view is as given below

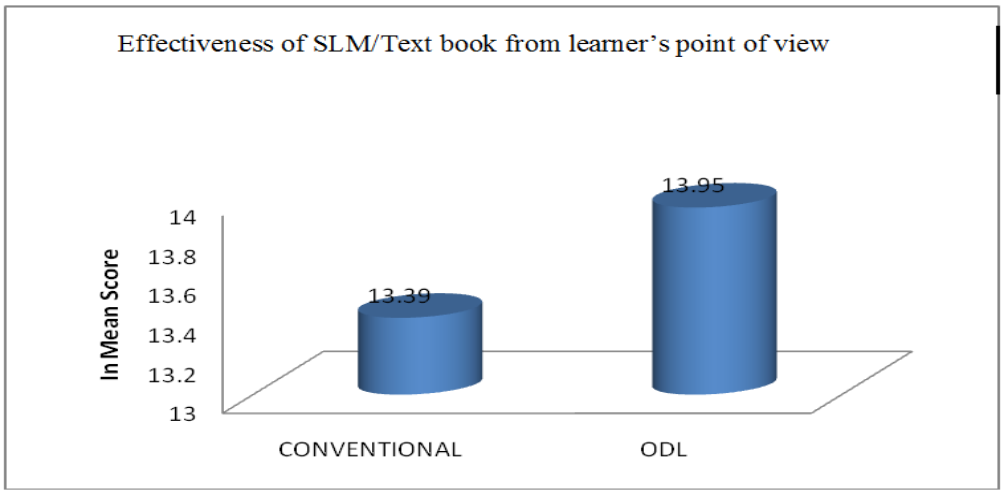


Figure 4.71: Graphical representation of the mean value of T-test for the effectiveness of study materials / text book of Conventional/ODL mode of education system.

4.3.7 Observation**:**In case of effectiveness of study material/text books both system of courses i.e. Conventional and ODL has the mean scores 13.39 and 13.95, SD are 2.774 and 2.295 respectively. The t-value is 3.069, df=798 and P=0.002 is highly significant at 0.01 level. Thus it can be concluded that the difference is highly significant and the effectiveness of study materials/text books of ODL is better than the study material/text books of conventional mode of education. Thus, the hypothesis can be rejected.

Objective -4 - To study the effectiveness of ICT in Conventional as well as ODL

Table : 4.18- 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	
	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%
Learning through the Internet website	0	0	67	16.75	178	44.5	106	26.5	32	8	0	0	160	40	128	32	89	22.25	23	5.75
Learning through sms/ radio/ television	0	0	0	0	68	17	102	25.5	195	48.75	0	0	0	0	80	20	190	47.5	130	32.5
Learning through phone in programme	0	0	0	0	23	5.75	97	24.25	90	22.5	0	0	0	0	35	8.75	110	27.5	255	63.75
Learning through Toll free phone service	0	0	0	0	0	0	21	5.25	43	10.75	0	0	0	0	10	2.5	11	2.75	379	94.75
Supplementry learning material in video learning	0	0	0	0	0	0	10	2.5	67	16.75	0	0	0	0	0	0	80	20	320	80

** Source : field study

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

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

4.4.1 Learning through Internet/website

From table 4.18 and figure 4.72 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.

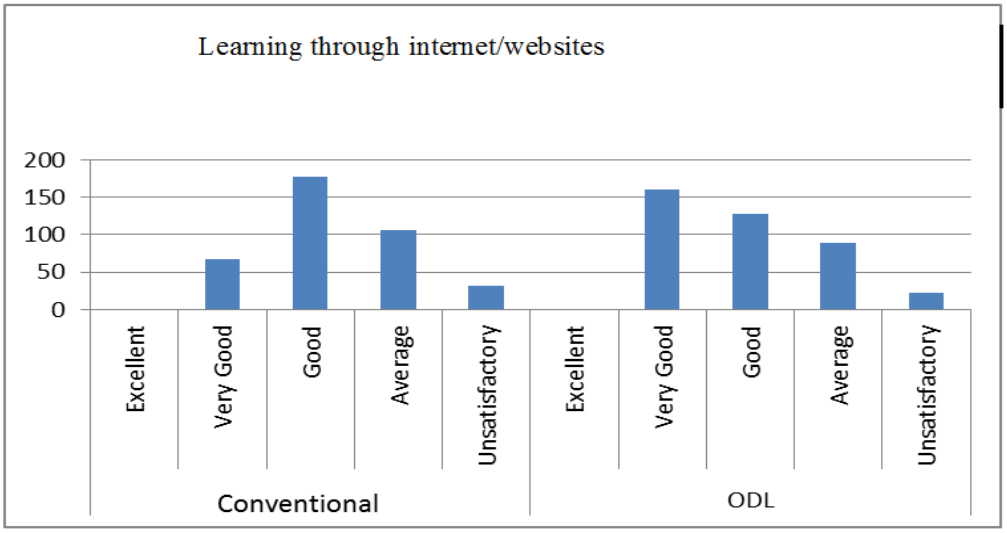


Figure 4.72: Graphical representation of learning through the Internet website related to usefulness of ICT in conventional/ODL system of education.

4.4.2 Learning through SMS/radio/television

From table 4.18 and figure 4.73 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.

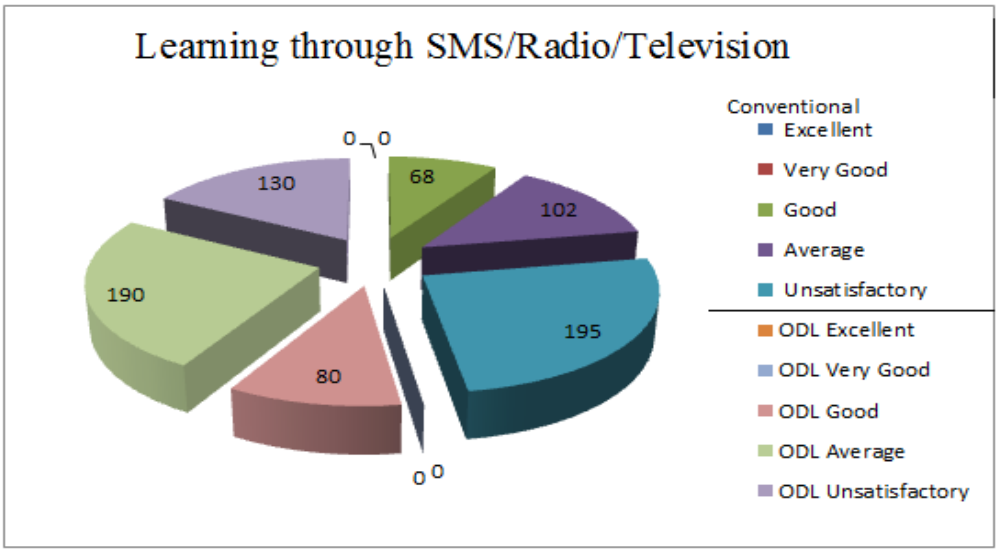


Figure 4.73: Graphical representation of learning through sms/radio/television related to the usefulness of ICT in conventional /ODL system of education.

4.4.3 Learning through phone in programmes

From table 4.18 and figure 4.74 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.

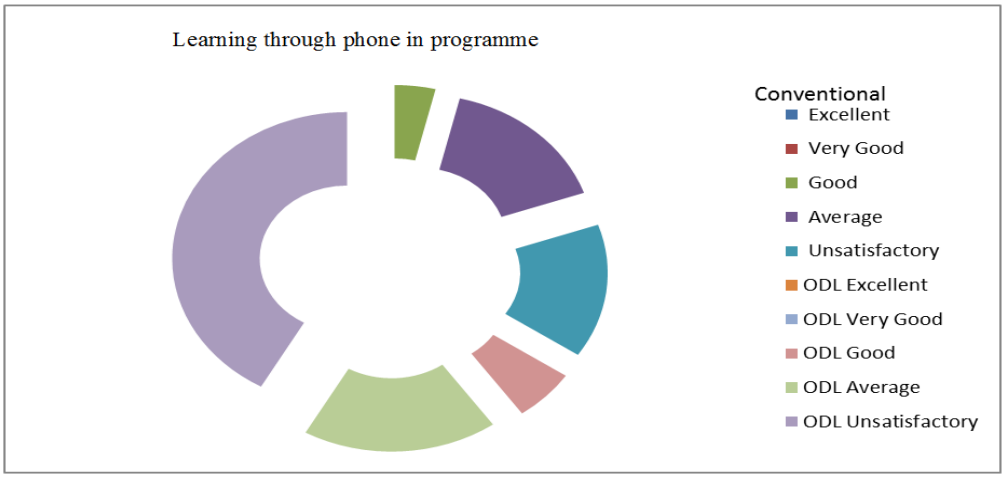


Figure 4.74: Graphical representation of learning through the phone in programme related to the usefulness of ICT in conventional /ODL system of education.

4.4.4 Learning through toll free phone service

From table 4.18 and figure 4.75 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.

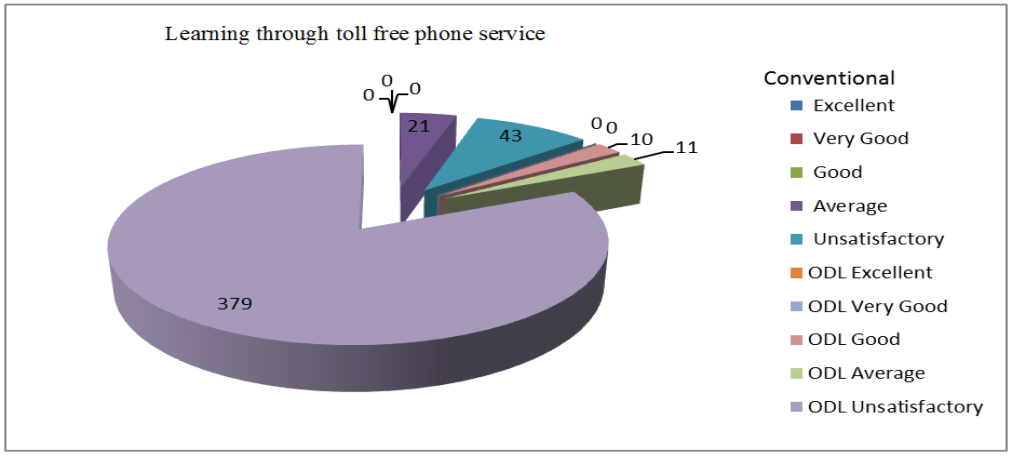


Figure 4.75: Graphical representation of learning through Toll free phone number related to the usefulness of ICT in conventional /ODL system of education.

4.4.5 Learning through supplementary learning material in video tapes

From table 4.18 and figure 4.76 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.

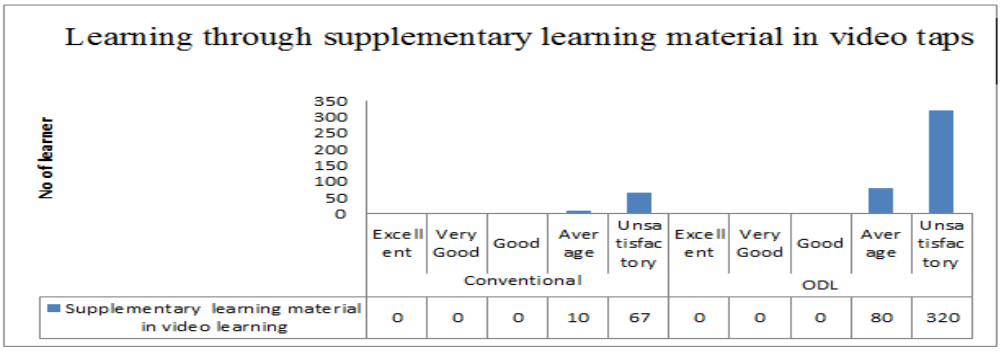


Figure 4.76: Graphical representation of learning through supplementary learning material in video tapes related to the usefulness of ICT in conventional /ODL system of education.

4.4.6 Test of Hypothesis

H10: In case of usefulness of ICT, there is no significant difference between conventional system and ODL system of education.

T-Test

Table 4.19: 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 viewis as given below

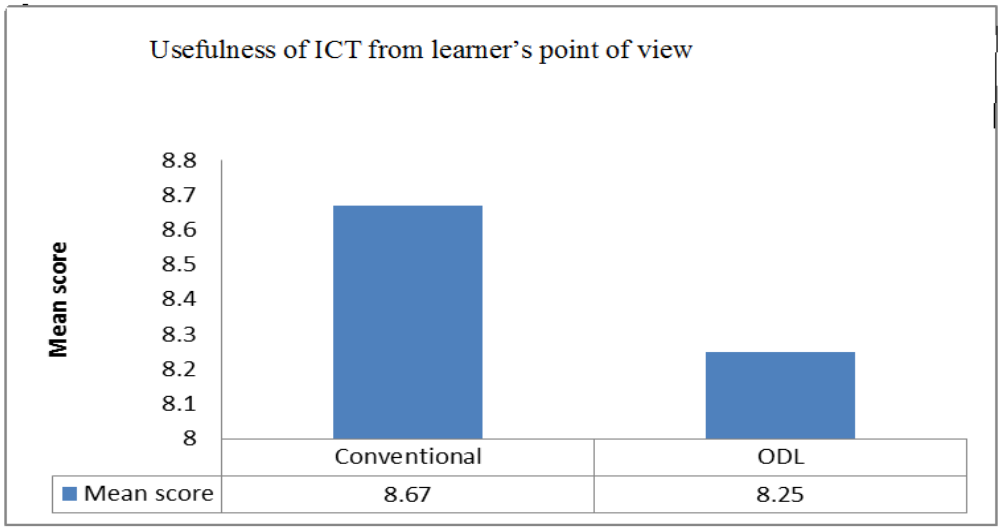


Figure 4.77: Graphical representation of the mean value of T-test for the usefulness of ICT in conventional /ODL system of education.

4.4.7 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.

Objective 5 - To find the cost effectiveness of existing undergraduate courses in Conventioal / ODL

Table 4.20: Data representing the percentage of the response to find the cost effectiveness of existing undergraduate courses under conventional and open and distance learning system.

Cost Effectiveness	Yes				No			
	No of respondent conventional	%	No of respondent ODL	%	No of respondent conventional	%	No of respondent ODL	%
Cost incurred for Textbooks / SLM	275	68.75	135	33.75	125	31.25	265	66.25
Cost incurred for transportation	119	29.75	289	72.25	281	70.25	111	27.75
Cost incurred by for Accomodation	285	71.25	130	32.5	115	28.75	270	67.5
Cost incurred for seminar / workshop	251	62.75	121	30.25	149	37.25	279	69.75
Cost incurred for excersion / fieldtrip	245	61.25	112	28	155	38.75	288	72
Cost incurred for library	256	64	132	33	144	36	268	67
Cost incurred for laboratory	272	68	122	30.5	128	32	278	69.5
Cost incurred for computer lab	265	66.25	178	44.5	135	33.75	222	55.5
Cost incurred Technology	267	66.75	113	28.25	133	33.25	287	71.75
Cost incurred Information & Communication	239	59.75	145	36.25	161	40.25	255	63.75

** Source : field study

4.5: To find the cost effectiveness of existing courses under conventional and open and distance learning system

In this case the investigator has analyzed the following parameters

4.5.1 Cost incurred for Text book/SLM

From table 4.20 and figure 4.78 it has been observed that, 68.75% respondents of conventional mode of study reported as positive in case of cost incurred for text book/SLM and 31.25% reported as negative while in ODL mode of education 33.75% as positive and 66.25% reported as negative response by the respondents. It can be concluded that the conventional education system shows better performance than open and distance mode of education.

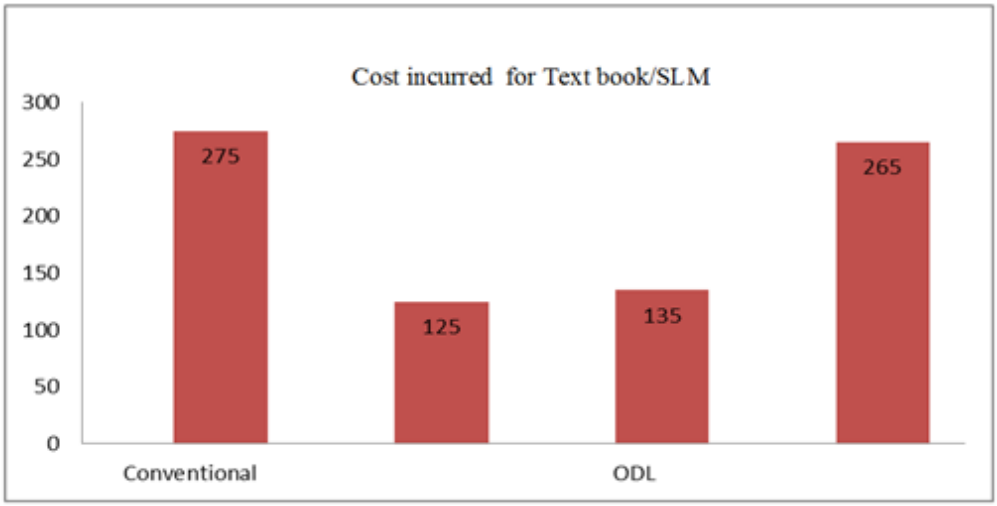


Figure 4.78: Graphical representation of cost incurred for textbook/SLM in case of conventional/ODL system of education.

4.5.2 Cost for Transportation

From table 4.20 and figure 4.79 it has been observed that 29.75% respondents of conventional mode of study reported as positive and 70.25% reported as negative in case of cost incurred for transportation while in ODL mode of education 72.25% reported as positive and 27.75% reported as negative response. Hence it reveals that the ODL education system shows better performance than conventional mode of education.

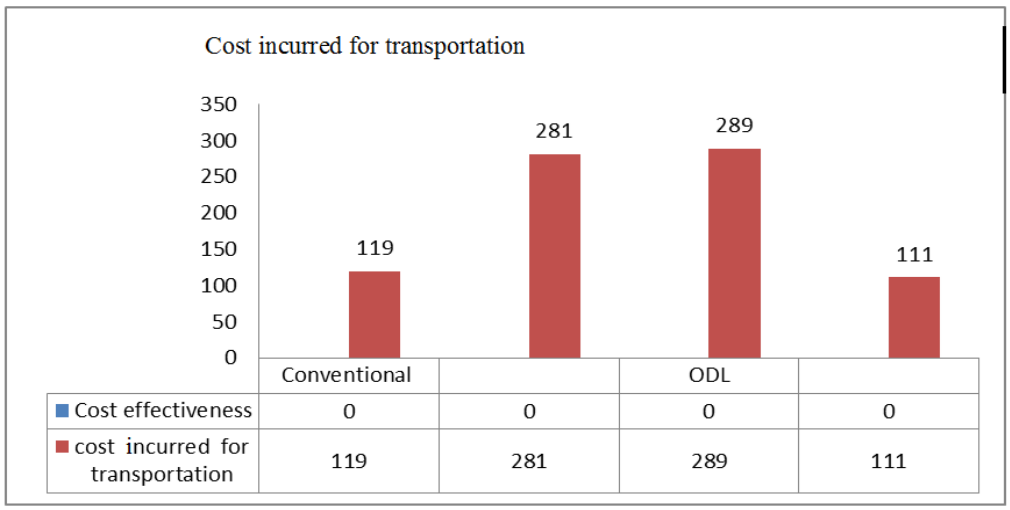


Figure 4.79: Graphical representation of cost incurred for transportation in case of conventional/ODL system of education.

4.5.3 Cost incurred for hostel Accommodation

From table 4.20 and figure 4.80 it has been revealed that, 71.25% respondents of conventional mode of study reported as positive in case of cost incurred for hostel accommodation and 28.75% as negative while in ODL mode of education 32.5% as positive and 67.5% reported as negative by the respondents. Hence it implies that the conventional education system shows better performance than open and distance mode of education.

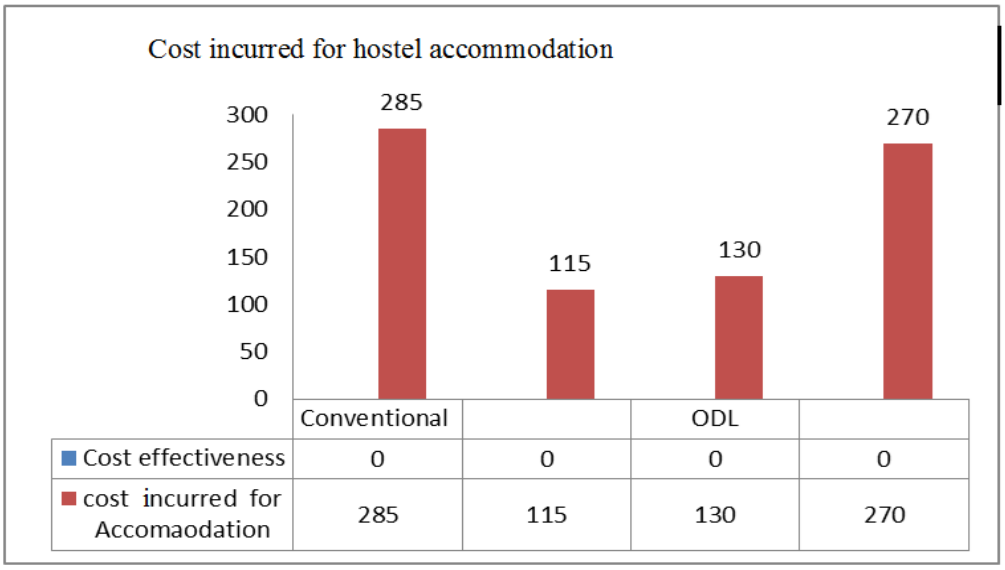


Figure 4.80: Graphical representation of cost incurred for accommodation in case of conventional/ODL system of education.

4.5.4 Cost incurred for seminar/workshop

From table 4.20 and figure 4.81 it has been observed that, 62.75% respondents of conventional mode of study reported as positive in case of cost incurred for seminar/workshop and 37.25% as negative while in ODL mode 30.25% as positive and 69.75% reported as negative by the respondents. It can be concluded that the conventional education system shows better performance than open and distance mode of education.

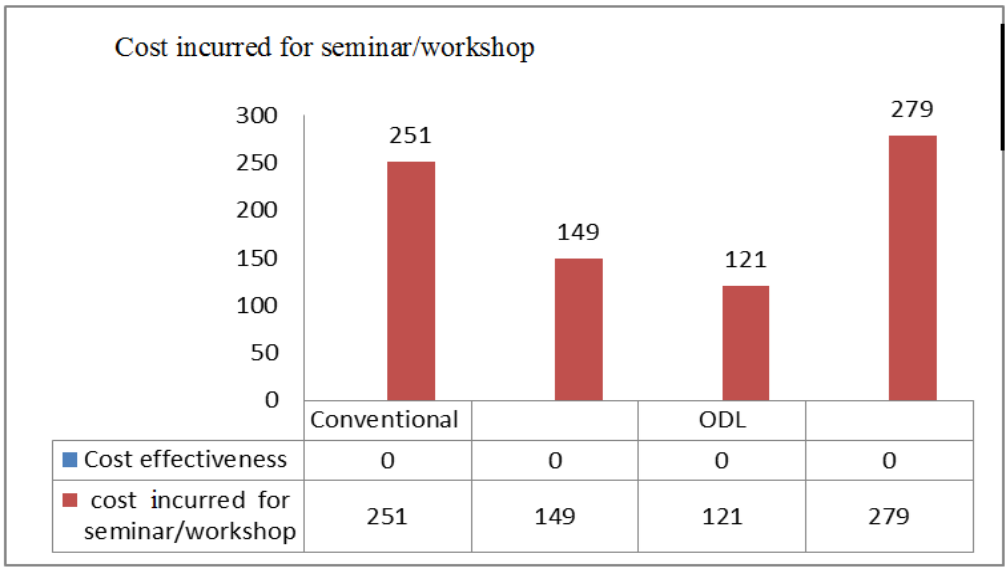


Figure 4.81: Graphical representation of cost incurred for seminar/workshop in case of conventional/ODL system of education.

4.5.5 Cost incurred for excursion/fieldtrips

From table 4.20 and figure 4.82 in case of cost incurred for excursion/fieldtrips it has been found that, 61.25% respondents of conventional mode of study reported as positive and 38.75% as negative while in ODL mode 28% as positive and 72% reported as negative by the respondents. Hence it implies that the conventional education system shows better performance than open and distance mode of education.

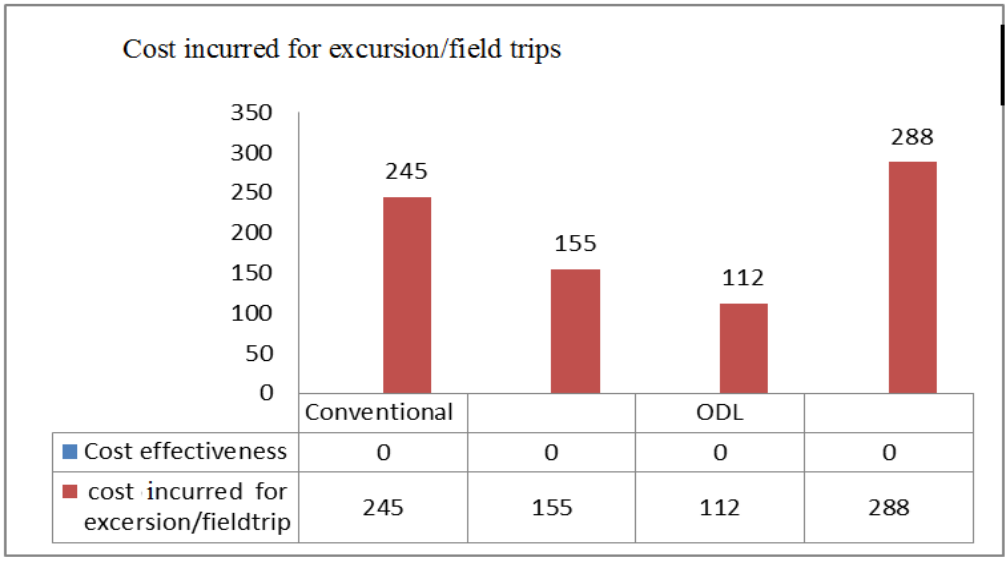


Figure 4.82: Graphical representation of cost incurred for excursion/fieldtrip in case of conventional/ODL system of education.

4.5.6 Cost incurred for library facility

From table 4.20 and figure 4.83 it has been found that, 64% respondents of conventional mode of study reported as positive in case of cost incurred for library facility and 36% as negative while in ODL mode 33% as positive and 67% reported as negative by the respondents. Hence it can be concluded that the conventional education system shows better performance than open and distance mode of education.

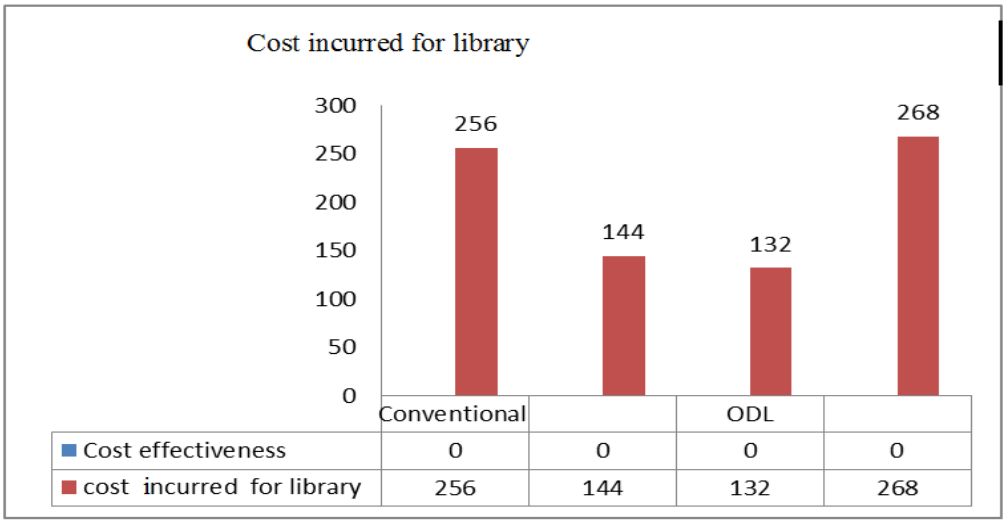
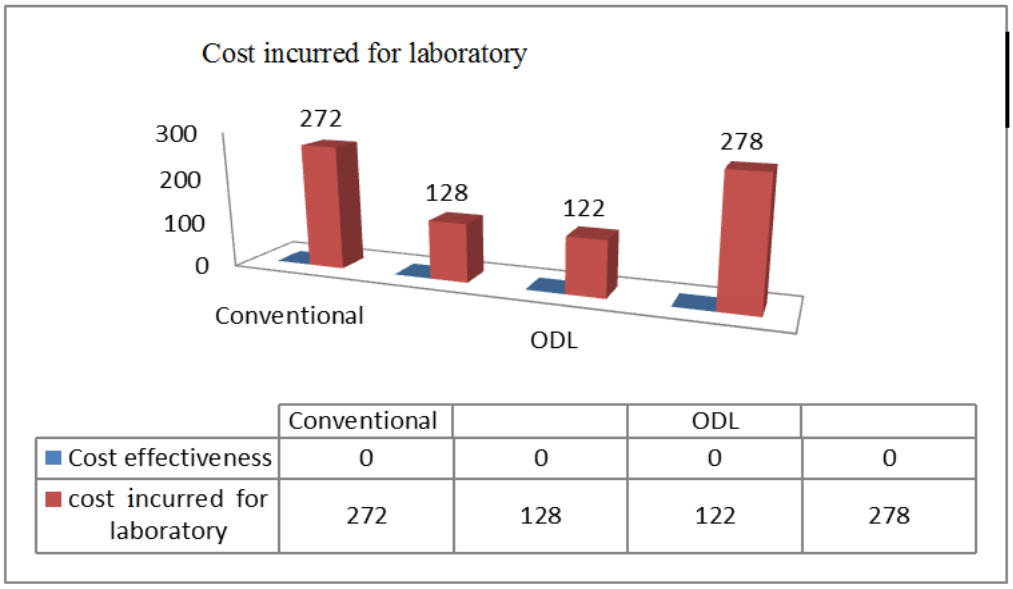


Figure 4.83: Graphical representation of cost incurred for library in case of conventional/ODL system of education.

4.5.7 Cost incurred for laboratory

From table 4.20 and figure 4.84 it has been found that, 68% respondents of conventional mode of study reported as positive in case of cost for laboratory and 32% as negative while in ODL mode 30.5% as positive and 69.5% reported as negative by the respondents. Hence it implies that the conventional education system shows better performance than open and distance mode of education.



	Conventional		ODL	
Cost effectiveness	0	0	0	0
cost incurred for laboratory	272	128	122	278

Figure 4.84: Graphical representation of cost incurred for laboratory in case of conventional/ODL system of education.

4.5.8 Cost incurred for computer laboratory

From table 4.20 and figure 4.85 it has been observed that, 66.25% respondents of conventional mode of study reported as positive in case of cost for computer lab and 33.75% as negative while in ODL mode 44.5% as positive and 55.5% reported as negative by the respondents. From the observation it can be concluded that the conventional education system shows better performance than open and distance mode of education.

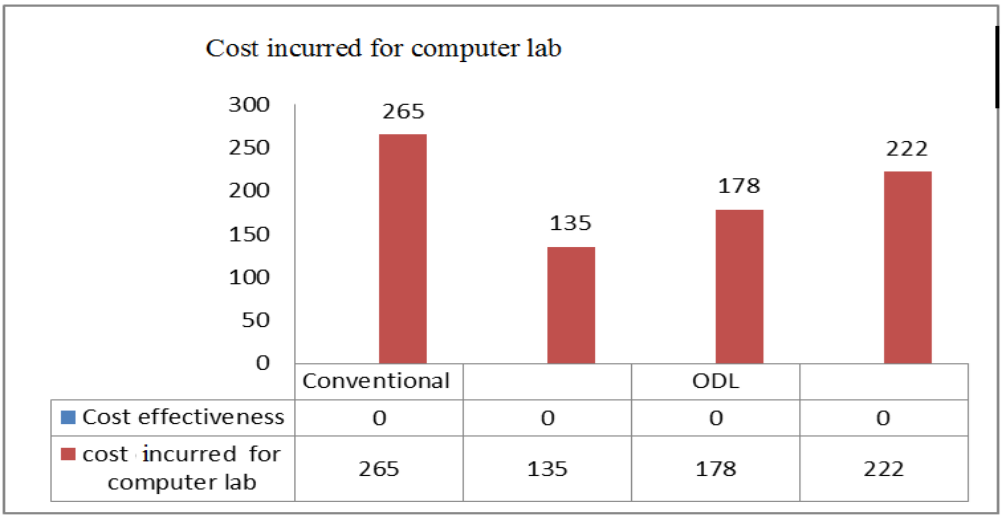


Figure 4.85: Graphical representation of cost incurred for computer laboratory in case of conventional/ODL system of education.

4.5.9 Cost incurred for ICT

From table 4.20 and figure 4.86 in case of cost incurred for ICT, 66.75% respondents of conventional mode of study reported as positive and 33.25% as negative while in ODL mode 28.25.% as positive and 71.75% reported as negative by the respondents. Hence it implies that the conventional education system shows better performance than open and distance mode of education.

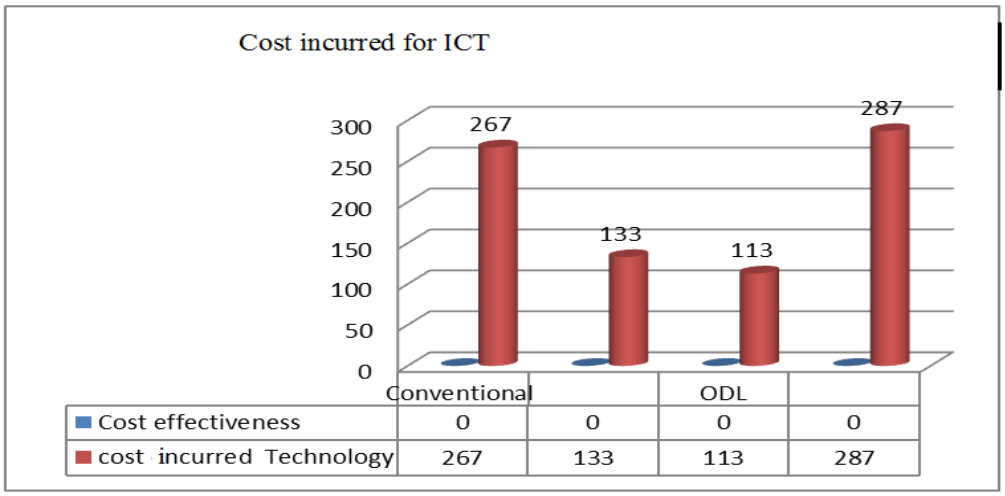


Figure 4.86: Graphical representation of cost incurred for ICT in case of conventional/ODL system of education.

4.5.10 Cost incurred for Technology and Communication

From table 4.20 and figure 4.87 it has been observed that, 59.75% respondents of conventional mode of study reported as positive in case of cost for Technology and communication and 40.25% as negative while in ODL mode 36.25% as positive and 63.75% reported as negative by the respondents and it can be concluded that the conventional education system shows better performance than open and distance mode of education.

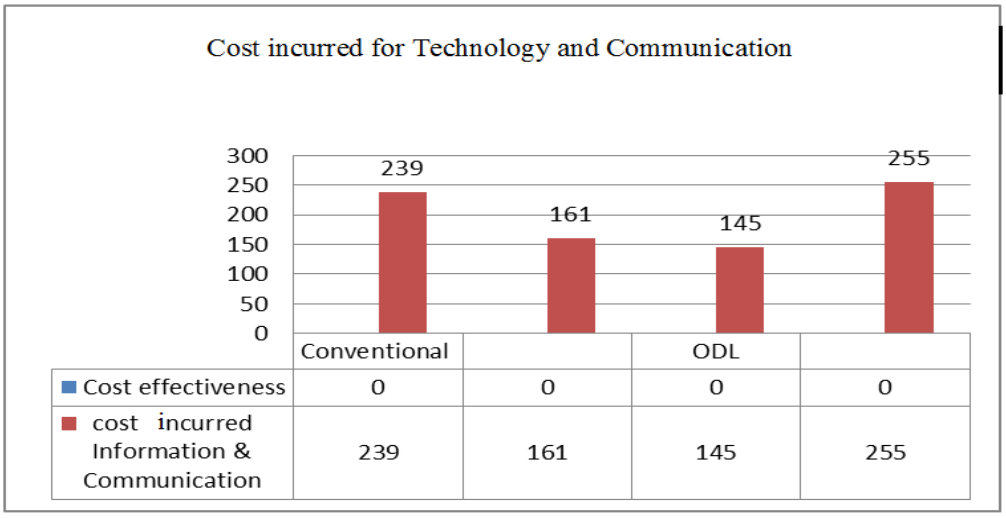


Figure 4.87: Graphical representation of cost incurred for Information and communication in case of conventional/ODL mode of education.

4.5.11 Test of Hypothesis

H11:There is no significant difference between ODL and conventional education system of education in case of cost effectiveness.

T-Test:

Table 4.21: t-value for the cost effectiveness of conventional/ODL system of education

Course	N	Mena	Sd. deviation	t	df	Sig.
CONVENTIONAL	400	5.94	1.321	20.82	798	.000**
ODL	400	3.96	1.702			

**Significant level is at P<0.01

The graphical representation of the mean value of T-test for the cost effectiveness of existing education under conventional and open and distance learning system is as given below:

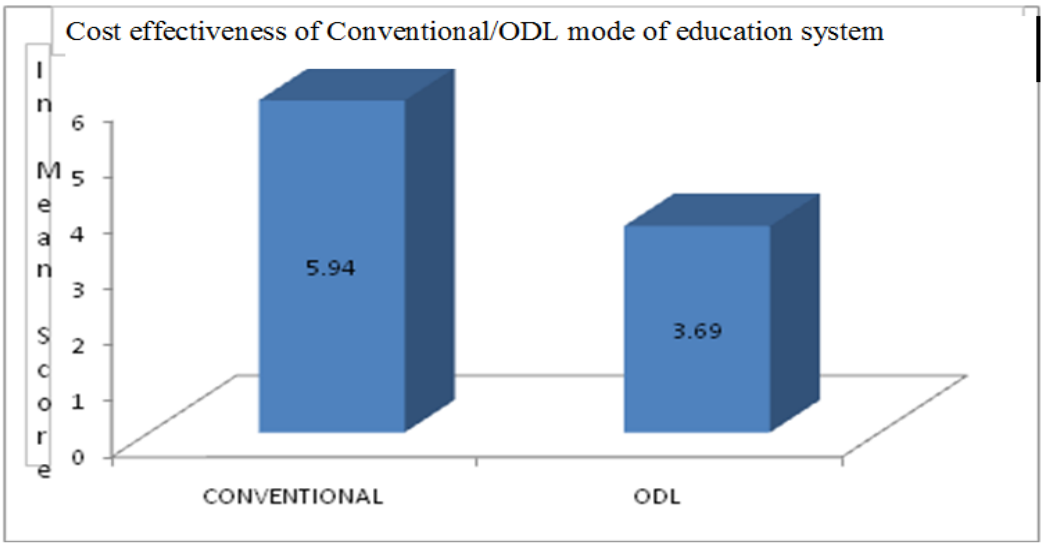


Figure 4.88: Graphical representation of the mean value of T-test for the cost effectiveness of existing education under conventional and open and distance learning system.

4.5.12 Observation**:**In case of cost effectiveness the above table depict that both system of courses i.e. Conventional and ODL has the mean scores 5.94 and 3.69, SD are 1.321 and 1.702 respectively. The t-value is 20.82, 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 cost effectiveness of existing education under ODL system is better than Conventional system. Thus, the hypothesis can be rejected.

4.6: Cost and Quality relationship

As discussed above there are different costs and quality in the different parameters from learner's point of view. Now the important point is to examine

the cost effectiveness of distance education as compared to conventional education system in relation to the quality aspect. To determine the cost-quality relationshipof Conventional course, cost and quality relationship of Open and distance education system and cost and quality relationship in both conventional and ODL system of education, it has been used the following correlation analysis has been used.

4.6.1 Correlation – Quality and Cost relationship in case of Conventional system of education.

Table 4.21: Correlation value of quality and cost of conventional education system.

N=400

Item	Mean	Std. Deviation	Pearson Correlation
Quality of Course	129.17	7.896	.170(**)
Cost of Course	5.94	1.321	

** Correlation is significant at the 0.01 level (2-tailed).

4.6.2 Observation**:** The mean value of correlation between quality and cost 129.17 and 5.94, sd. deviation 7.896 and 1.321 at Pearson correlation .170**. In case of conventional system of education the quality is directly proportional to the cost of the courses that is when cost increases quality also increases from learner's point of view and which is significantly correlated at 0.01 level.

4.6.3 Correlation –Quality andCost relationship in case of ODL system of education.

Table 4.23: Correlation value of quality and cost of ODL education system.
N=400

Item	Mean	Std. Deviation	Pearson Correlation
Quality of Course	112.35	7.852	.042
cost of Course	3.69	1.702	

4.5.17 Observation:The mean value of correlation between quality and cost 112.35 and 3.69, sd. deviation 7.852 and 1.702 at Pearson correlation 042. In case of ODL quality is directly proportional to the cost of the course that is when cost is increased, quality also increases from learner's point of view which is not significantly correlated.

4.6.4 Correlation– Quality and Cost relationship in case of both the system i.e.Conventional and ODL mode of education.

Table 4.24: Correlation value of Quality and Cost of both the systems(Conventional and ODL system)

N=800

Item	Mean	Std. Deviation	Pearson Correlation
Quality of Course	120.76	11.523	.487(**)
Cost of Course	4.81	1.891	

** Correlation is significant at the 0.01 level (2-tailed).

4.6.6 Observation: The mean value of correlation between quality and cost 120.76 and 4.81, sd. deviation 11.523 and 1.891 at Pearson correlation .487**. In case of both Conventional and ODL system of education, the quality is directly proportional to the cost of the courses i.e. when cost is increased the quality has also increased and it is positively correlated.

CHAPTER - V

5. Introduction

In this chapter, the percentage of sample groups are distributed in the percentage analysis table on the basis of the value obtained through the questionnaire from the Teachers/Counselors point of view in conventional and ODL mode of education. The values have been classified in various levels as specified in the manual of the questionnaire. The result has been based on responses of distance as well as conventional teachers/counselors in respect of different components of the Questionnaire which are presented in different objectives.

From teachers / counselor point of view the following parameters have been considered:

5.1(a): The Comparative view of Conventional / ODL mode of education system.

5.1(b): The Comparative view of Convention/ODL mode of education in respect of examination system.

5.1(c): Effectiveness of study materials/ textbooks.

5.1(d): Usefulness of ICT.

5.1 (a) Comparative view for Teachers/ Counselors point of view

Table : 5.1 - Data representing the percentage of the response of the learners in comparative view form teachers/ Counselor's point of view

Comparative view	Conventional										ODL									
	Excellent		Very Good		Good		Average		Unsatisfactory		Excellent		Very Good		Good		Average		Unsatisfactory	
	No.of respondents	%	NNo.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%
Programme in effective	32	12.8	78	31.2	67	26.8	34	13.6	39	15.6	25	10	69	27.6	63	25.2	45	18	48	19.2
Economy Cost effective	10	4	79	31.6	73	29.2	51	20.4	37	14.8	30	12	83	33.2	77	30.8	56	22.4	4	1.6
Useful in Understanding	32	12.8	67	26.8	73	29.2	35	14	43	17.2	10	4	57	22.8	70	28	30	12	83	33.2
Acquisition of More knowledge	22	8.8	77	30.8	70	28	32	12.8	49	19.6	20	8	72	28.8	65	26	29	11.6	64	25.6
Organized Approaches	27	10.8	75	30	78	31.2	67	26.8	3	1.2	22	8.8	75	30	75	30	60	24	18	7.2
Easy access to Communication	23	9.2	87	34.8	72	28.8	45	18	23	9.2	20	8	82	32.8	69	27.6	42	16.8	37	14.8
Effective use of information and communication technology	20	8	50	20	89	35.6	75	30	16	6.4	12	4.8	35	14	79	31.6	83	33.2	41	16.4
Effective SLM/ print audio - visual	12	4.8	45	18	65	26	75	30	53	21.2	25	10	67	26.8	87	34.8	62	24.8	9	3.6
Effective student support services	23	9.2	75	30	65	26	45	18	42	16.8	13	5.2	70	28	60	24	41	16.4	66	26.4
Timely held of Seminar Workshop	20	8	70	28	57	22.8	45	18	58	23.2	9	3.6	45	18	40	16	34	13.6	122	48.8
Adequate and effective counseling session/ class	19	7.6	72	28.8	78	31.2	50	20	31	12.4	5	2	30	12	41	16.4	49	19.6	125	50
Good Governance	21	8.4	78	31.2	79	31.6	67	26.8	5	2	10	4	50	20	65	26	35	14	90	36

** Source : field study

5.1(a): The Comparative view in Conventional/ODL mode of education system

To study the comparative view from teachers/counselors point of view the investigator has considered the following parameters.

5.1.1 Programme is effective

From table 5.1 and figure 5.1 it has been observed that 12.8% respondents of conventional system reported as excellent, 31.2%as very good, 26.8% as good, 13.6% as average, 15.6% are unsatisfactory in case of effectiveness of the programmewhile in ODL system of education 10% as excellent, 27.6% as very good, 25.2% as good, 18% as average and 19.2 % as unsatisfactory as reported by the respondents.From this analysis it can be concluded that the conventional education system shows better performance than open and distance mode of education system except in average percentage.

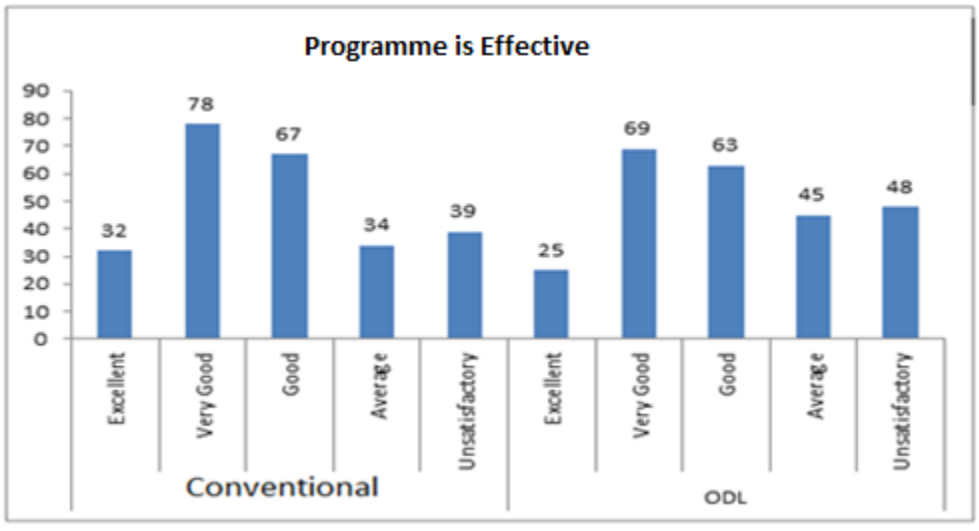


Figure 5.1: Graphical representation of comparative view of programme is effective in case of conventional/ODL mode of education system

5.1.2 Economy/Cost effective

From table 5.1 and figure 5.2 it has been observed that 4% respondents of conventional system reported as excellent, 31.6% as very good, 29.2% as good, 20.4% as average, 14.8% are unsatisfactory in case of effectiveness of economy/cost whilein ODL system of education 12% as excellent, 33.2% as very good, 30.8% as good, 22.4% as average and 1.6 % as unsatisfactory as reported by the respondents.As a result it can be concluded that the ODL education system shows better performance than conventional mode of education except in average percentage.

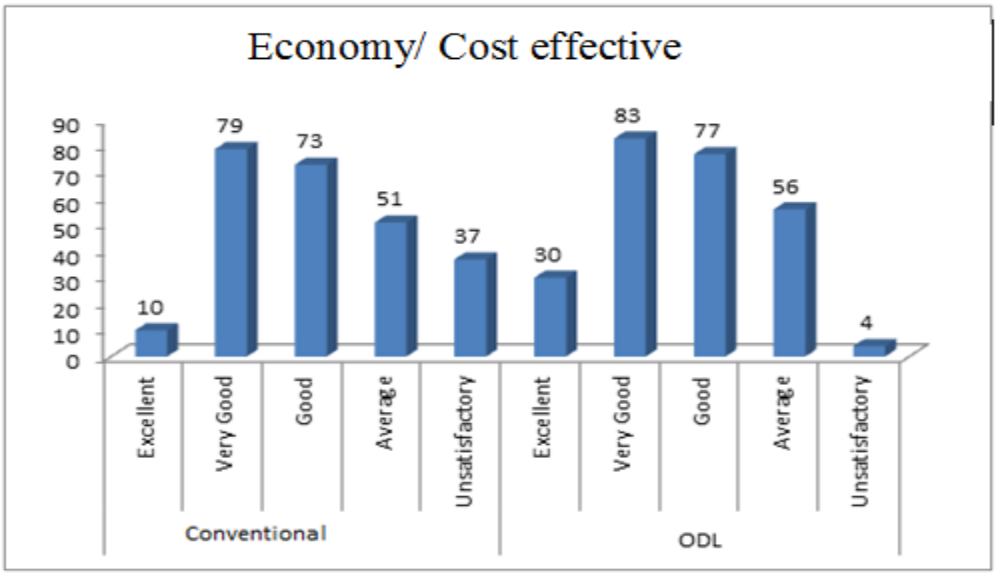


Figure 5.2: Graphical representation of comparative view of Economy/Cost is effective in case of conventional/ODL mode of education system

5.1.3 Useful in understanding

From table 5.1 and figure 5.3 it has been observed that 12.8% respondents of conventional system reported as excellent, 26.8% as very good, 29.2% as good, 14% as average, 17.2% are unsatisfactory while in case of ODL system of

education 4% as excellent, 22.8% as very good, 28% as good, 12% as average and 33.2% as unsatisfactory as reported by the respondents from teachers/counselors point of view in the usefulness of understanding .From the observation it reveals that the conventional education system shows better performance than open and distance mode of education.

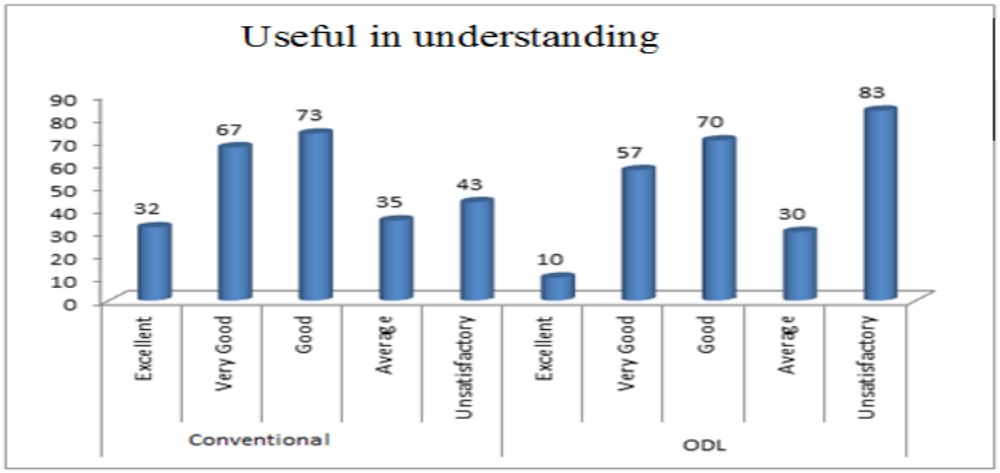


Figure 5.3: Graphical representation of comparative view of useful in understanding in case of conventional/ODL mode of education system

5.1.4Acquisition of more knowledge

From table 5.1 and figure 5.4 it has been observed that in comparative view, 8.8% respondents of conventional system reported as excellent, 30.8% as very good, 28% as good, 12.8% as average, 19.6% are unsatisfactory in case of acquisition of more knowledge while 8% as excellent, 28.8% as very good, 26% as good, 11.6% as average and 25.6 % as unsatisfactory as reported by the respondents. Thus it implies that the conventional education system shows better performance than open and distance mode of education.

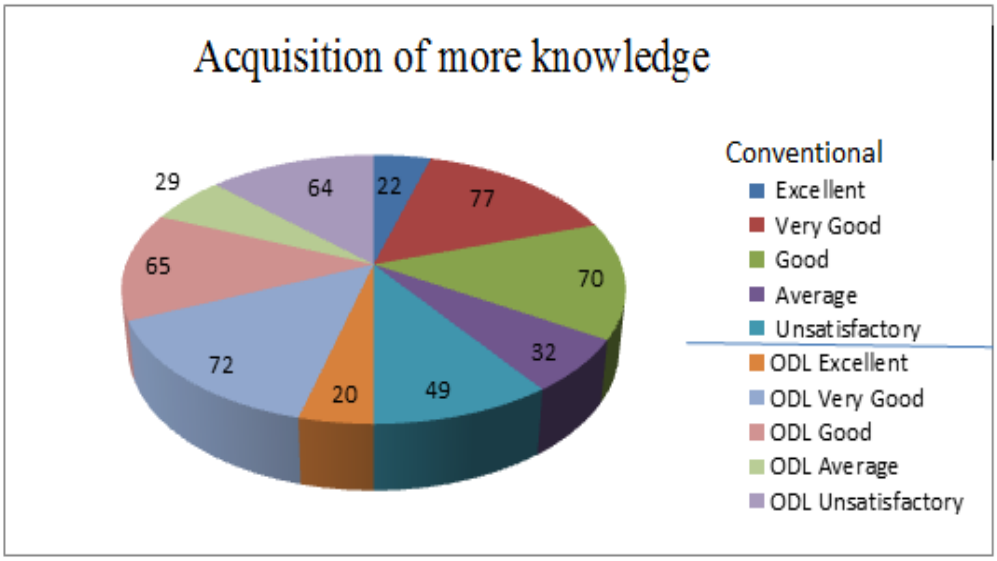


Figure 5.4: Graphical representation of comparative view of acquisition of more knowledge in case of conventional/ODL mode of education system

5.1.5 Organized Approaches

From table 5.1 and figure 5.5 in case of organized approaches 10.8% respondents of conventional system reported as excellent, 30% as very good, 31.2% as good, 26.8% as average, 1.2% are unsatisfactory while in ODL, 8.8% as excellent, 30% as very good, 30% as good, 24% as average and 7.2 % as unsatisfactory as reported by the respondents. From the analysis it reveals that the conventional education system shows better performance than open and distance mode of education.

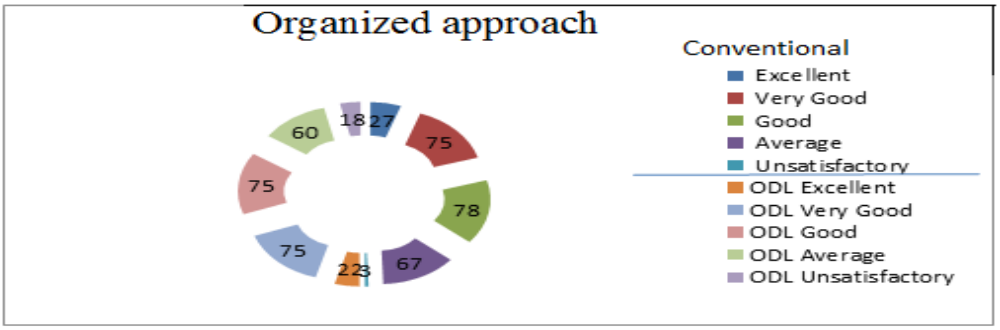


Figure 5.5: Graphical representation of comparative view of organized approaches in case of conventional/ODL mode of education system

5.1.6 Easy access to communication

From table 5.1 and figure 5.6 it can be observed from the analysis that in comparative view, 9.2% respondents of conventional system reported as excellent, 34.8% as very good, 28.8% as good, 18% as average, 9.2% as unsatisfactory in easy access to communication while 8% as excellent, 32.8% as very good, 27.6% as good, 16.8% as average and 14.8 % as unsatisfactory as reported by the respondents. Form the above observation it has concluded that the conventional education system shows better performance than open and distance mode of education.

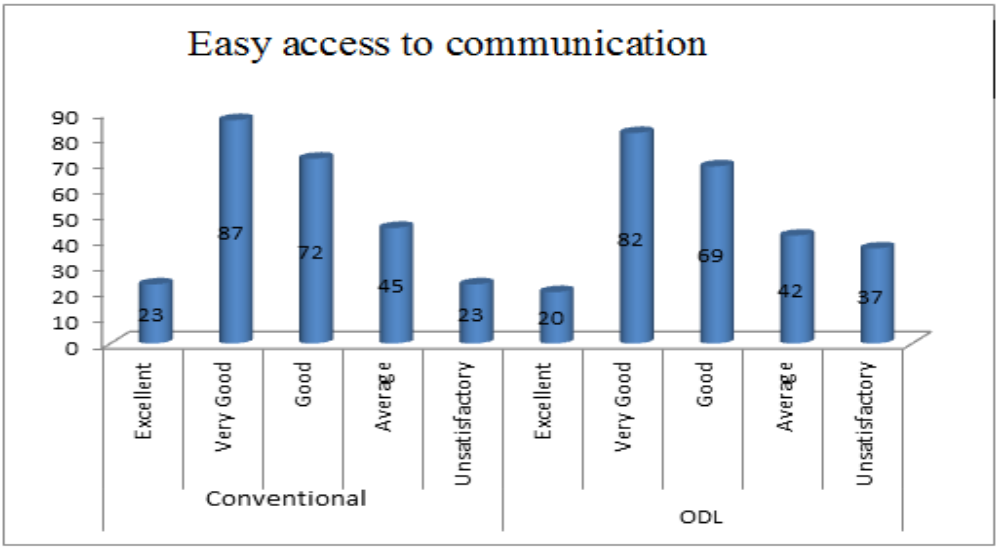


Figure 5.6: Graphical representation of comparative view of easy access to communication in case of conventional/ODL mode of education system

5.1.7 Information and Communication Technology

From table 5.1 and figure 5.7 in comparative view , 8% respondents of conventional system reported as excellent, 20% as very good, 35.6% as good, 30% as average, 6.4% as unsatisfactory in effective use of information and communication technology while in case of ODL system of education 4.8% as excellent, 14% as very good, 31.6% as good, 33.2% as average and 16.4 % as unsatisfactory as reported by respondents and it can be concluded that the conventional education system shows better performance than open and distance mode of education except average percentage.

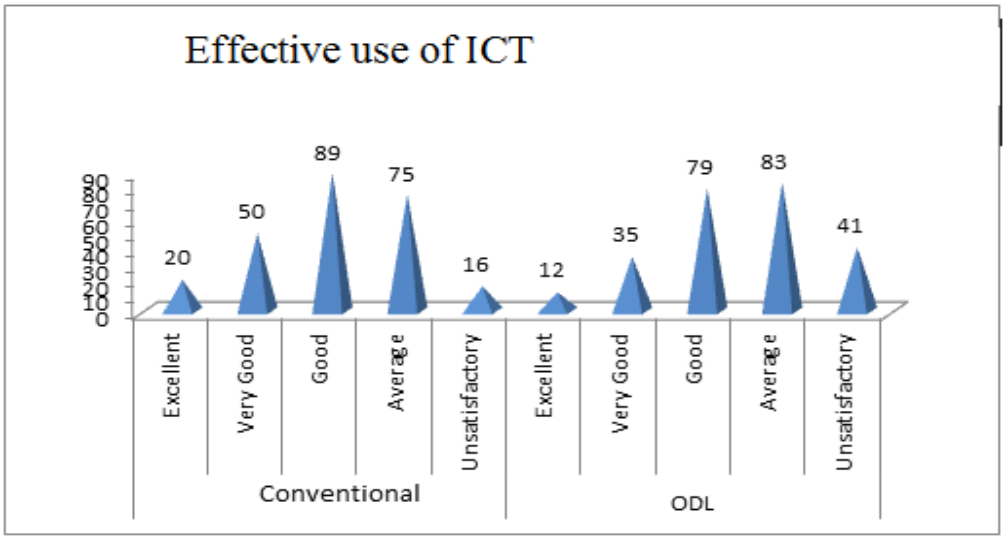


Figure 5.7: Graphical representation of comparative view in effective use of information and communication technology in case of conventional/ODL mode of education system

5.1.8 Effective SLM

From table 5.1 and figure 5.8 in case of effectiveness of SLM, 4.8% respondents of conventional system reported as excellent, 18% as very good, 26% as good, 30% as average, 21.2% as unsatisfactory in comparative view, while in case of ODL system of education 10% as excellent, 26.8% as very good, 34.8% as good, 24.8% as average and 3.6 % as unsatisfactory reported by respondents. As a result it can be concluded that the conventional education system shows better performance than open and distance mode of education.

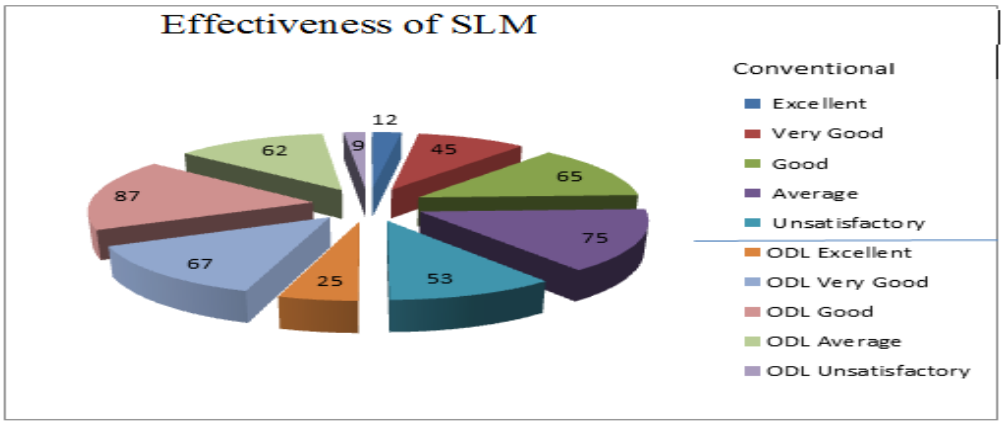


Figure 5.8: Graphical representation of comparative view in effective SLM (print/ audio-visual)in case of conventional/ODL mode of education system

5.1.9 Effective student support services

From table 5.1 and figure 5.9 it has been observed that, 9.2% respondents of conventional system reported as excellent, 30% as very good, 26% as good, 18% as average, 16.8% as unsatisfactory in effective student support service while in case of ODL system of education 5.2% as excellent, 28% as very good, 24% as good, 16.4% as average and 26.4 % as unsatisfactory as reported by respondents. From the observation it can be concluded that the conventional education system shows better performance than open and distance mode of education.

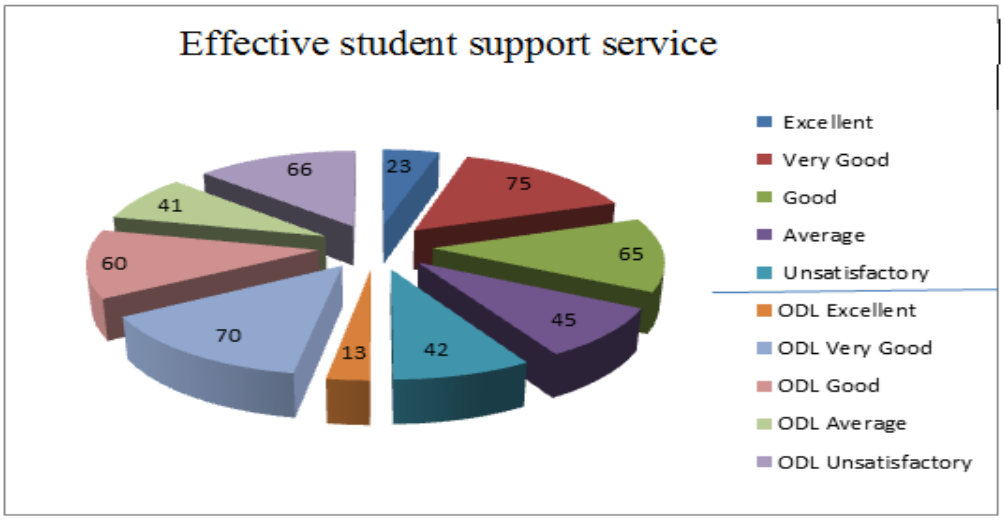


Figure 5.9: Graphical representation of comparative view in effective student support servicesin case of conventional/ODL mode of education system

5.1.10 Timely held seminar/workshop

From table 5.1 and figure 5.10 it has been observed from the analysis that, 8% respondents of conventional system reported as excellent, 28% as very good, 22.8% as good, 18% as average, 23.2% as unsatisfactory in case of timely held seminar/workshop while in case of ODL system of education 3.6% as excellent, 18% as very good, 16% as good, 13.6% as average and 48.8 % as unsatisfactory as reported by the respondents. The results imply that the conventional education system shows better performance than open and distance mode of education.

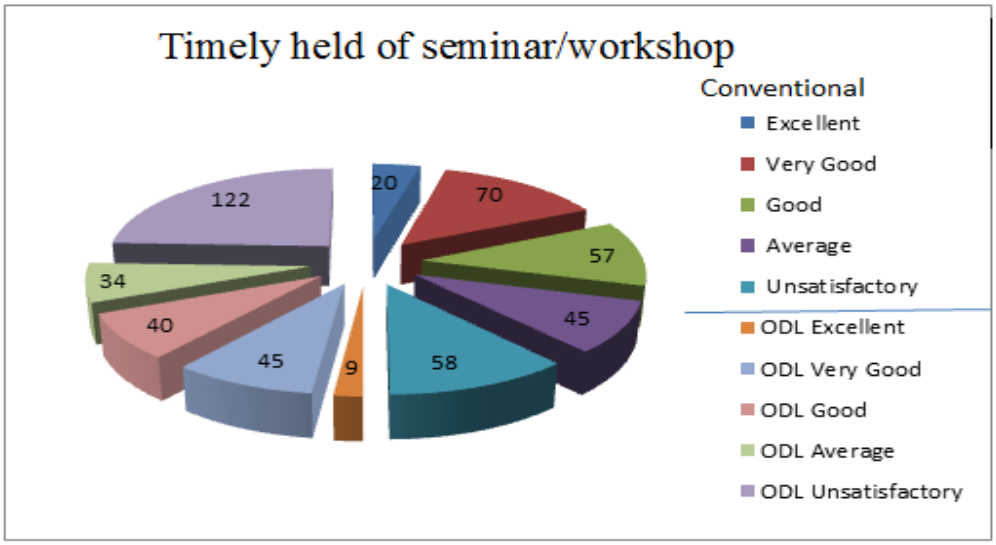


Figure 5.10: Graphical representation of timely holding seminar/workshop in comparative view in conventional/ODL mode of education system

5.1.11 Counseling session/class

From table 5.1 and figure 5.11 in conventional education system, 7.6% respondents reported as excellent, 28.8% as very good, 31.2% as good, 20% as average, and 12.4% as unsatisfactory in case of counseling session / class while in ODL mode of education 2% as excellent, 12% as very good, 16.4% as good, 19.6% as average and 50 % as unsatisfactory. It can be revealed that the conventional education system shows better performance than open and distance mode of education in comparative view responded by teachers/counselors.

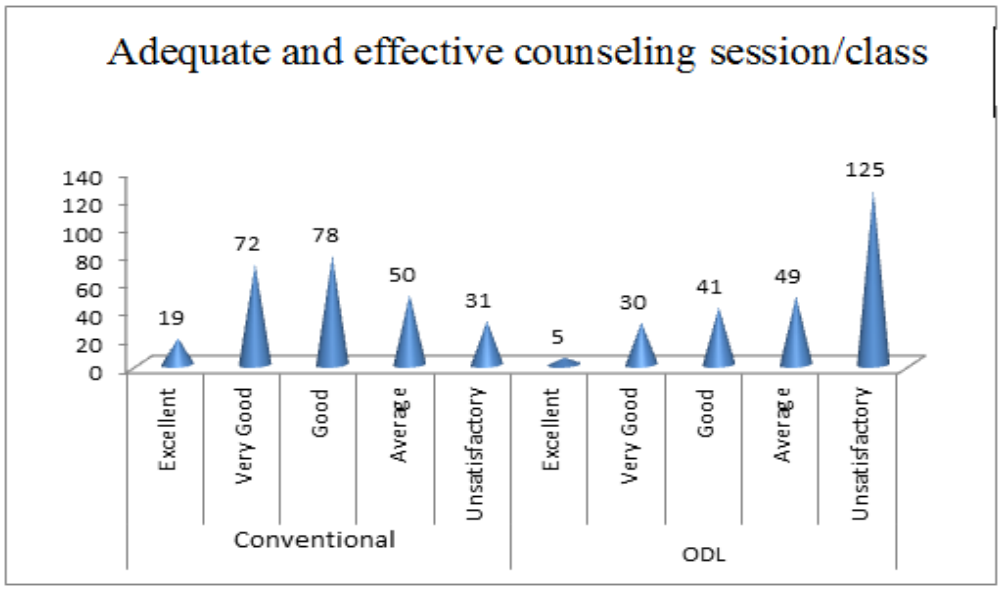


Figure 5.11: Graphical representation of comparative view in adequate and effective counseling session/ class in conventional/ODL mode of education system.

5.1.12 Good Governance

From table 5.1 and figure 5.12 in good governance, it has been observed that 8.4% respondents of conventional system reported as excellent, 31.2% as very good, 31.6% as good, 26.8% as average, 2% as unsatisfactory while in case of ODL system of education 4% as excellent, 20% as very good, 26% as good, 14% as average and 36 % as unsatisfactory as reported by the respondent.Hence the result reveals that the conventional education system shows better performance than open and distance mode of education.

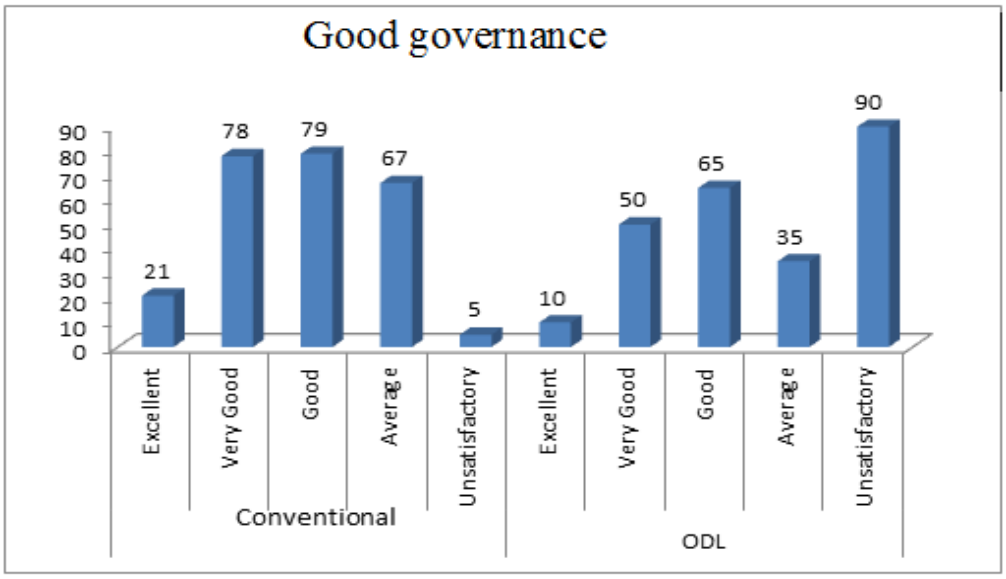


Figure 5.12: Graphical representation of comparative view in good governance in case of conventional/ODL mode of education system

5.1.13 Test of Hypothesis

H1**:**In case of comparative view there is no significant difference between Conventional /ODL mode of education system from teachers/counselors point of view.

T-Test:

Table 5.2: t-value for comparative view for conventional/ODL from teachers/counselors point of view

Course	N	Mean	Sd. deviation	t	df	Sig.
CONVENTIONAL	250	35.82	5.897	7	498	.000**
ODL	250	32.63	4.164			

**Significant level is at P<0.01

The graphical representation of the mean value of T-test for the comparative view in Conventional/ODL system of education from teacher/counselors point of view is as given below

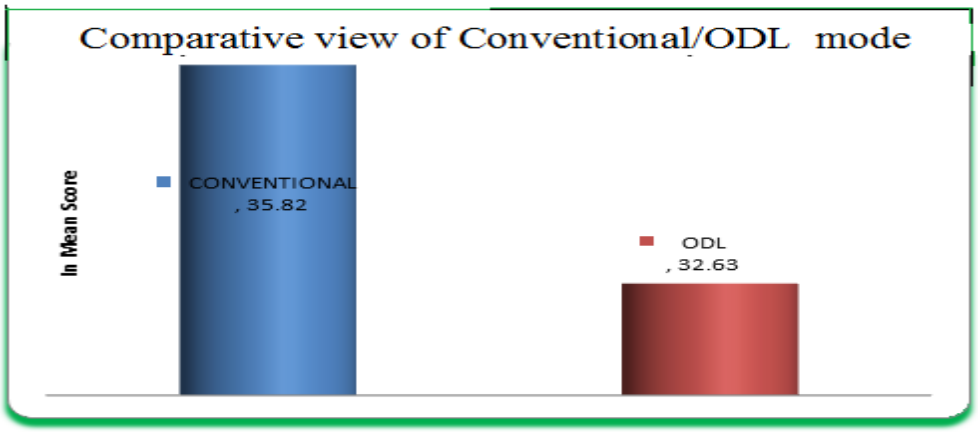


Figure 5.13: Graphical representation of the mean value of T-test for the comparative view in Conventional/ODL system of education

5.1.14 Observation**:** In comparative view the above table depict that the both system of courses i.e. Conventional and ODL has the mean scores 35.82 and32.63, SD are 5.897 and 4.164 respectively. The t-value is 7, df=498 and P=0.000 is highly significant at 0.01 level. Thus it can be concluded that the difference is highly significant and the comparative view in conventional system is higher than the ODL system of education. Thus, the hypothesis can be rejected.

5.1 (b) Comparative view in respect of Examination System from Teachers/ Counselors point of view

Table : 5.3 - Data representing the percentage of the response of comparative view of the Conventional / ODL system of education in respect of education system from teachers/Counselor's point of view

Comparative view in respect of examination system	Conventional										ODL									
	Excellent		Very Good		Good		Average		Unsatisfactory		Excellent		Very Good		Good		Average		Unsatisfactory	
	No.of respondents	%	No.of respondents	%	No.of respondents	%	NNo.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%	No.of respondents	%
Timely holding of examination	0	0	75	30	75	30	75	30	25	10	0	0	100	40	90	36	25	10	35	14
Timely declaration of results	0	0	50	20	100	40	76	30.4	24	9.6	0	0	60	24	75	30	50	20	40	16
Transparent examination system	24	9.6	50	20	113	45.2	50	20	13	5.2	30	12	82	32.8	78	31.2	25	10	35	14

** Source : field study

5.2: The comparative view in connection to the examination system in Conventional/ODL system of education

To study the comparative view in conventional/ODL mode of education in case of examination system the investigators has considered the following points.

5.2.1Timely holding of examination

From table 5.3 and figure 5.14 in Timely holding of examination no respondents of conventional as well as ODL mode of education system reported as excellent, 30% as very good, 30% as good, 30% as average, 10% as unsatisfactory while in case of ODL system of education, 40% as very good, 36% as good, 10% as average and 14 % as unsatisfactory as reported byrespondents in comparative view from teachers/counselors point of view. As a result it can be concluded that the ODL system shows better performance than conventional mode of education system, except average percentage.

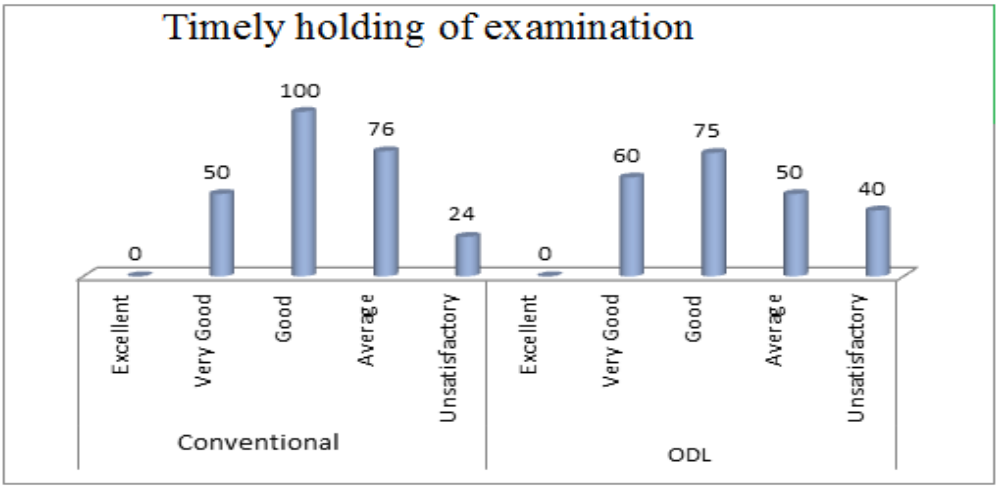


Figure 5.14: Graphical representation of comparative view in timely holding of examination in conventional/ODL mode of education system

5.2.2 Declaration of examination result

From table 5.3 and figure 5.15 it has been found from the percentage table that no respondents of conventional system reported as excellent, 20% as very good, 40% as good, 30.4% as average, 9.6% as unsatisfactory in case of declaration of examination result while in ODL system of education,no one as excellent, 24% as very good, 30% as good, 20% as average and 16 % as unsatisfactory as reported by the respondents. The result implies that the conventional education system shows better performance than open and distance mode of education.

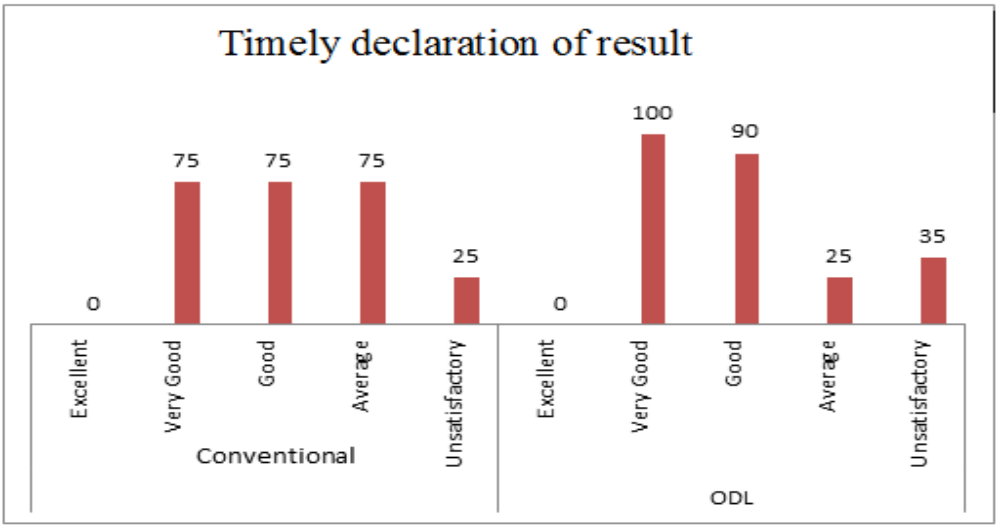


Figure 5.15: Graphical representation of comparative view in declaration of examination result of examination in conventional/ODL mode of education system

5.2.3 Transparent examination system

From table 5.3 and figure 5.16 teachers/counselors point of view 9.6% respondents of conventional system reported as excellent, 20% as very good, 45.2% as good, 20% as average, 5.2% are unsatisfactory in case of transparent examination system while in ODL system of education, 12% as excellent, 32.8%

as very good, 31.2% as good, 10% as average and 14 % as unsatisfactory as reported by respondents. From the analysis it implies that the conventional education system shows better performance than open and distance mode of education.

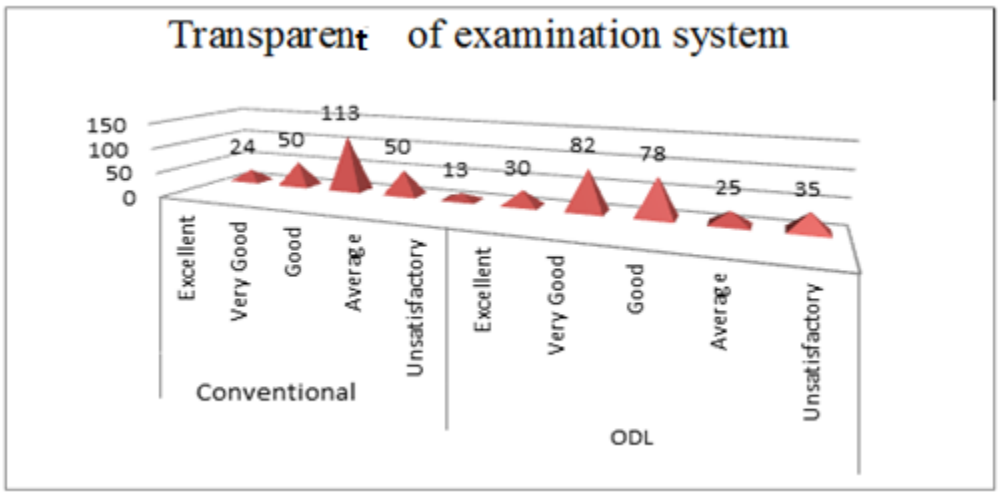


Figure 5.16: Graphical representation of comparative view of transparent examination system in conventional/ODL mode of education system

5.2.4 Test of Hypothesis

H2:There is no significant difference in case of comparative view in connection to the examination system in Conventional/ODLmode of education system.

T-Test:

Table 5.4: t-value for comparative view in connection with examination system from teachers/counselors point of view

Course	N	Mean	Sd. deviation	t	df	Sig.
CONVENTIONAL	250	9.03	1.413	3.924	498	.000**
ODL	250	8.58	1.15			

**Significant level is at P<0.01

The graphical representation of the mean value of T-test for comparative view in connection to the examination system in Conventional/ODL system of education from teacher/counselors point of view is as given below

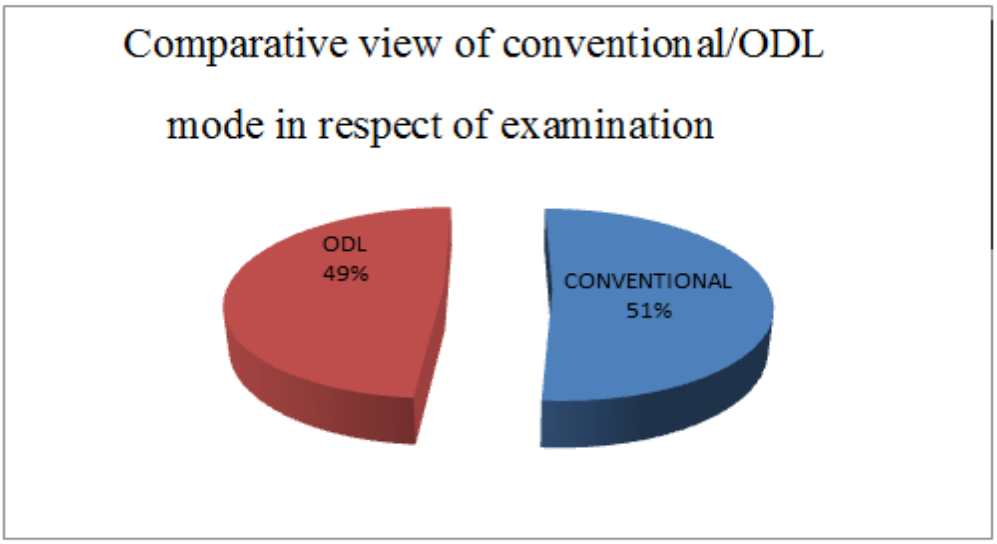


Figure 5.17: Graphical representation of the mean value of T-test for the comparative view in connection with examination system

5.2.5 Observation**:**It has been implied that the comparative view in connection to the examination system of Conventional/ODL has the mean scores 9.03and 8.58, SD are 1.413 and 1.15 respectively. The t-value is 3.924, df=498 and P=0.000 is highly significant at 0.01 level. Thus it can be concluded that the difference is highly significant and the comparative view in connection to the examination system, conventional system shows better performance than ODL system of education. Hence, the hypothesis is rejected.

Table 5.5 Data representing the percentage of the response to study the effectiveness of study materials / text book of Conventional/ODL mode of education from Teacher/Councilors point of view.

Interaction of the learning material	Conventional										ODL									
	Excellent		Very Good		Good		Average		Unsatisfactory		Excellent		Very Good		Good		Average		Unsatisfactory	
	No of respondents	%	No of respondents	%	No of respondents	%	No of respondents	%	No of respondents	%	No OF respondents	%	No OF respondents	%	No OF respondents	%	No OF respondents	%	No OF respondents	%
User friendly	35	14	120	48	65	26	24	9.6	6	2.4	65	26	125	50	25	10	20	8	15	6
Real life situation analysis	65	26	45	18	101	40.4	12	4.8	27	10.8	25	10	25	10	125	50	45	18	30	12
Interactive	56	22.4	102	40.8	34	13.6	21	8.4	37	14.8	35	14	65	26	73	29.2	13	5.2	64	25.6
Self-Instructional	25	10	75	30	74	29.6	50	20	26	10.4	50	20	75	30	50	20	56	22.4	19	7.6
Easy & Lucid language	75	30	102	40.8	25	10	25	10	23	9.2	100	40	65	26	25	10	24	9.6	36	14.4

** Source: field study

5.3: The effectiveness of study materials / text book of Conventional /ODL mode of education in the study area

To study the effectiveness of the study material/text books the investigators has considered the following parameters

5.3.1User friendly

From table 5.5 and figure 5.18 in user friendly, 14% respondents of conventional study reported as excellent, 48% as very good, 26% as good, 9.6% as average, 2.4% are unsatisfactory while in ODL system 26% as excellent, 50% as very good, 10% as good, 8% as average and 6% as unsatisfactory as reported by the respondents. Thus it can be concluded that the conventional education system shows better performance than open and distance mode of education.

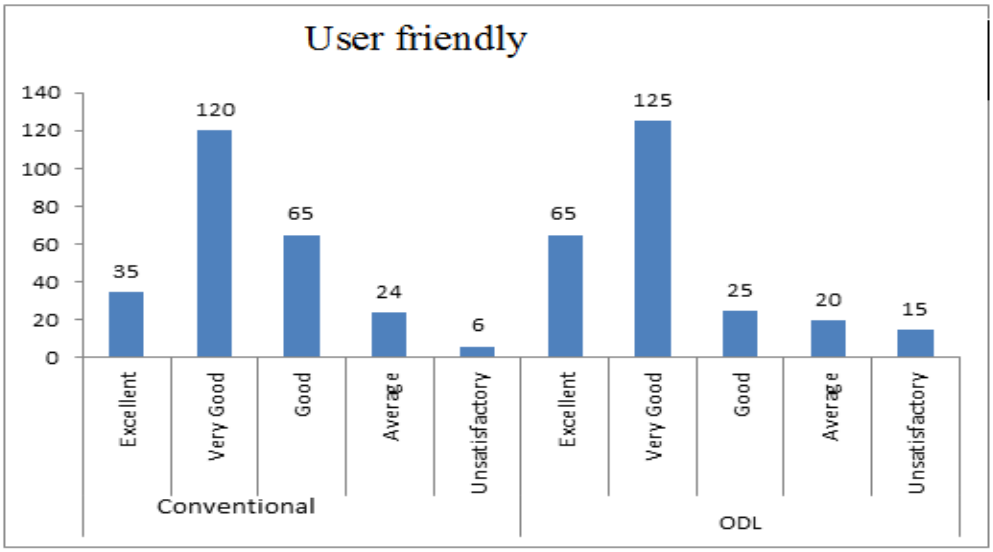


Figure 5.18: Graphical representation of user friendly from teachers/counselors point of view.

5.3.2Real life situation analysis

From table 5.5 and figure 5.19 in case of real life situation analysis, 26% respondents of conventional system reported as excellent, 18% as very good, 40,4% as good, 4.8% as average, 10.8% as unsatisfactory while in ODL system 10% as excellent, 10% as very good, 50% as good, 18% as average and 12% as unsatisfactory as reported by respondents. Hence it reveals that the conventional education system has better performance than open and distance mode of education.

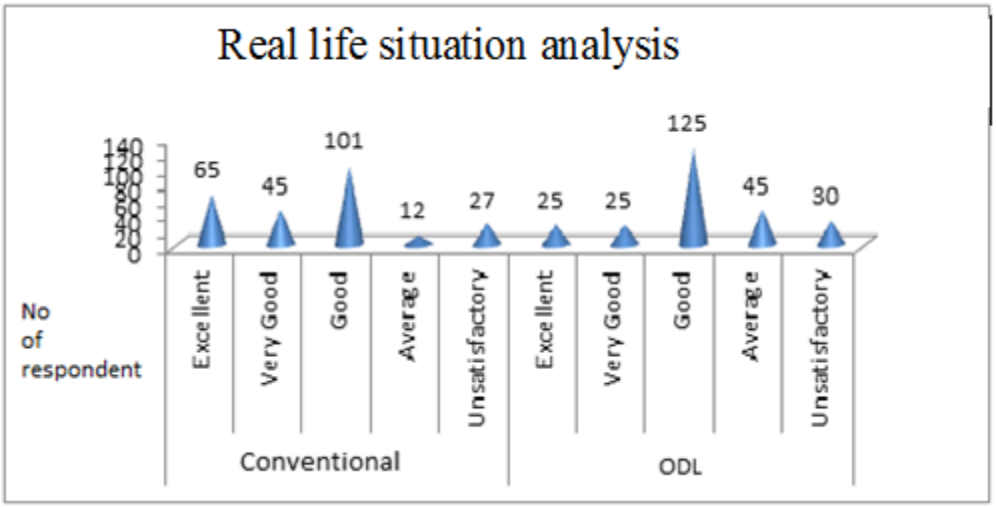


Figure 5.19: Graphical representation of real life situation analysis from teachers /counselors point of view.

5.3.3 Interactive

From table 5.5 and figure 5.20 it can observed that, 22.4% respondents of conventional study reported as excellent, 40.8% as very good, 13.6% as good, 8.4% as average, 14.8% are unsatisfactory in case of interactive while in ODL system of education, 14% as excellent, 26% as very good, 29.2% as good, 5.2% as average and 25.6% as unsatisfactory as reported by respondents. As a results it

can be concluded that the conventional education system shows better performance than open and distance mode of education.

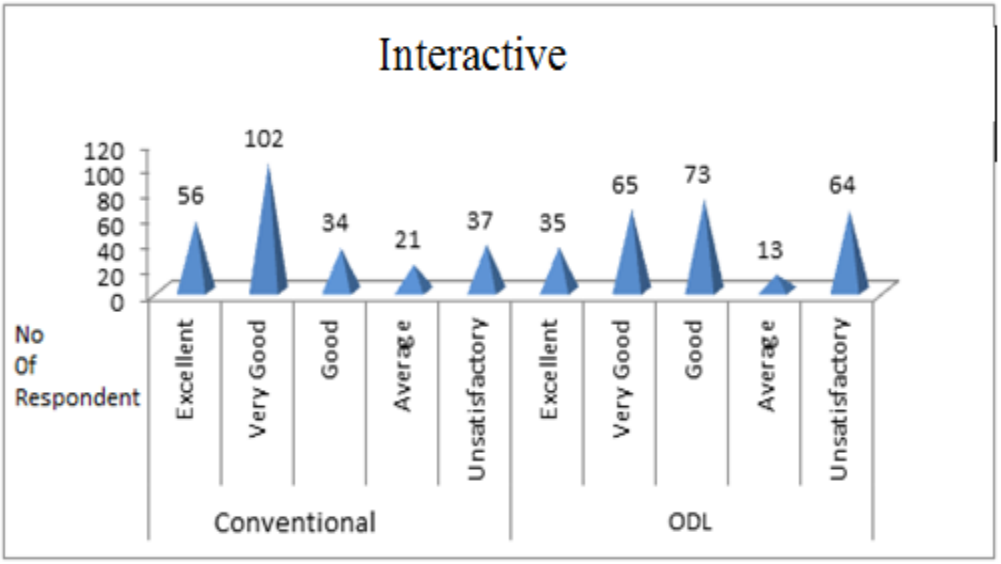


Figure 5.20: Graphical representation of interactive in case of Conventional/ODL mode of education system

5.3.4 Self Instructional

From table 5.5 and figure 5.21 it has been observed that, 10% respondents of conventional study reported as excellent, 30% as very good, 29.6% as good, 20% as average, 10.4% are unsatisfactory in case of self-instructional while in ODL system 20% as excellent, 30% as very good, 20% as good, 22.4% as average and 7.6 % as unsatisfactory as reported by respondents. From the observation it is revealed that the conventional education system shows better performance than open and distance mode of education.

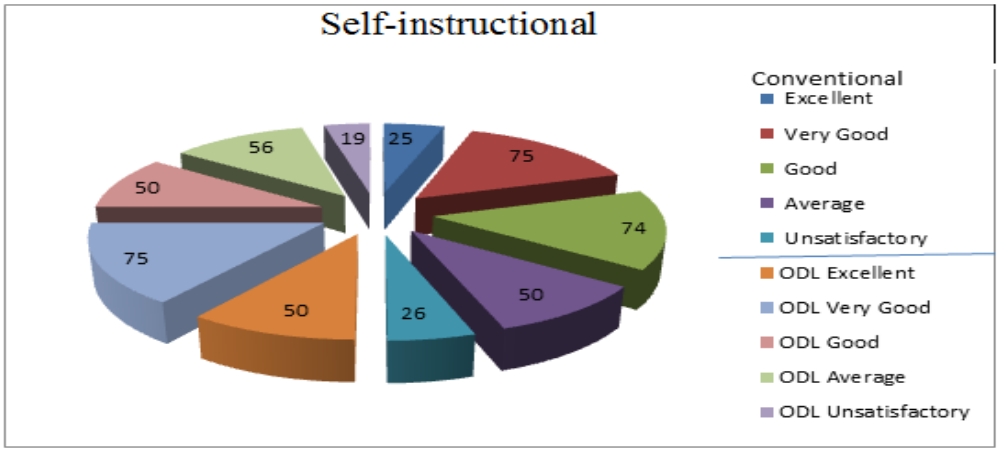


Figure 5.21: Graphical representation of comparative view inself-instructional from teachers /counselors point of view.

5.3.5 Easy and lucid language

From table 5.5 and figure 5.22 in easy and lucid language, 30% respondents of conventional study reported as excellent, 40.8% as very good, 10% as good, 10% as average, 9.2% are unsatisfactory while in ODL 40% as excellent, 26% as very good, 10% as good, 9.29% as average and 14.4 % as unsatisfactory as reported by respondents. Hence it implies that the conventional education system shows better performance than open and distance mode of education.

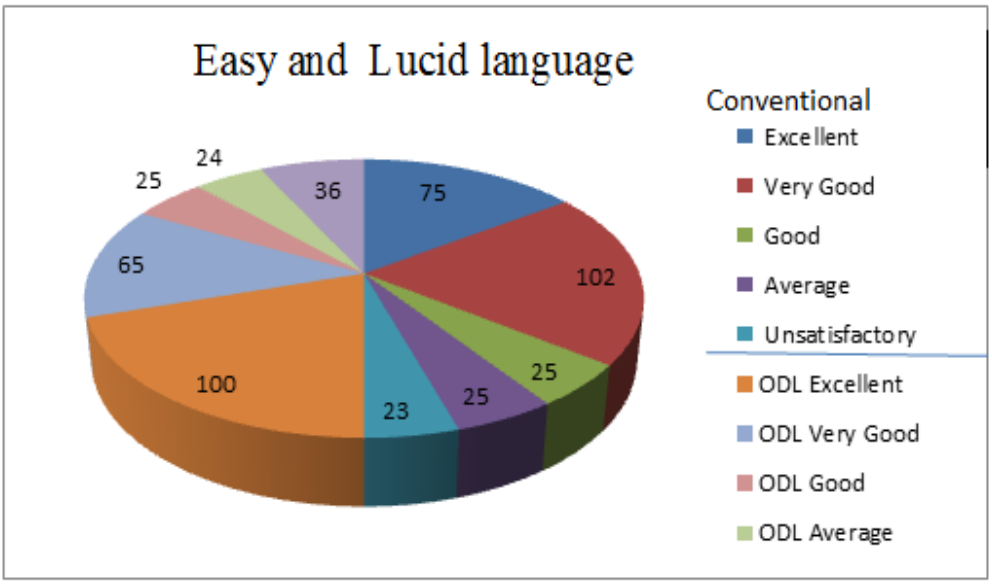


Figure 5.22: Graphical representation in easy and lucid language in case of Conventional/ODL mode of education system from teachers/counselors point of view.

5.3.6 Test of Hypothesis

H3:There is no significant difference between Conventional/ODL mode of education system in case of effectiveness of study materials / text books.

T-Test

Table 5.6: t-value for the effectiveness of study materials/text books of conventional/ODL mode of education

Course	N	Mean	Sd. Deviation	T	df	Sig.
CONVENTIONAL	250	16.69	2.086	0.061	498	0.951
ODL	250	16.68	2.31			

**Significant level is at P<0.01

The graphical representation of the mean value of T-test for the effectiveness of study materials / text book of Conventional/ODL mode of education from teachers/Counselors point of view is as given below:

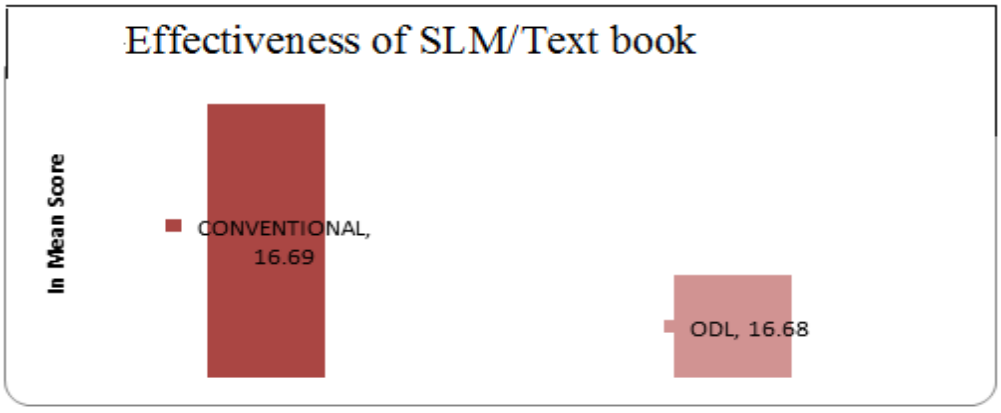


Figure 5.23: Graphical representation of the mean value of T-test for the effectiveness of study materials / text book of Conventional/ODL mode of education.

5.3.7 Observation**:**In case of effectiveness of study material/text book the above table depicts that both the courses i.e. Conventional and ODL have the mean scores 16.69 and 16.68, SD are 2.086 and 2.31 respectively. The t-value is 0.061, df=498 and P=0.951, it is not highly significant at 0.01 level. Thus it can be concluded that the effectiveness of study materials / text books of Conventional mode of education is almost the same with the ODL mode of education system. Thus, the hypothesis can be accepted.

5.4: The usefulness of ICT from teachers/counselors point of view

To study the usefulness of ICT the investigator has considered the following parameters.

5.4.1 Computer

From table 5.7 and figure 5.24 in computer, 10% respondents of conventional study reported as excellent, 30% as very good, 30% as good, 20% as average, 10% as unsatisfactory while in ODL system 8% as excellent, 22.4% as very good, 26.8% as good, 18% as average and 24.8% as unsatisfactory as reported by respondents. As a result it can be concluded that the conventional education system shows better performance than open and distance mode of education.

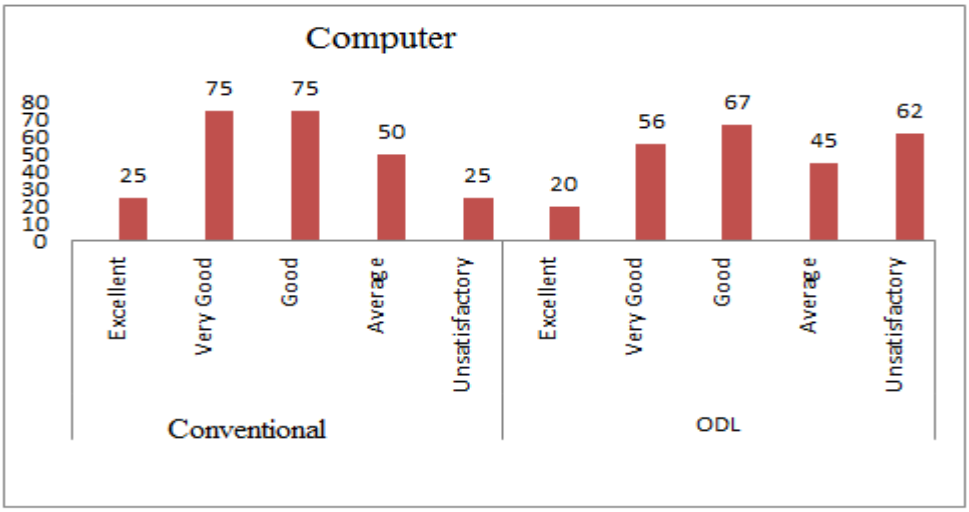


Figure 5.24: Graphical representation of the usefulness of computer in conventional/ODL mode of education from teachers/counselors point of view.

5.4.2 Video conference

From table 5.7 and figure 5.25 in video conference, no one respondents of conventional study reported as excellent, as very good, as good, as average, 100% are unsatisfactory while in ODL system no one as excellent, very good, good, average and 100 % as unsatisfactory as reported by respondents.From the observation it can be concluded that the conventional education system and ODL system has shown the unsatisfactory result.

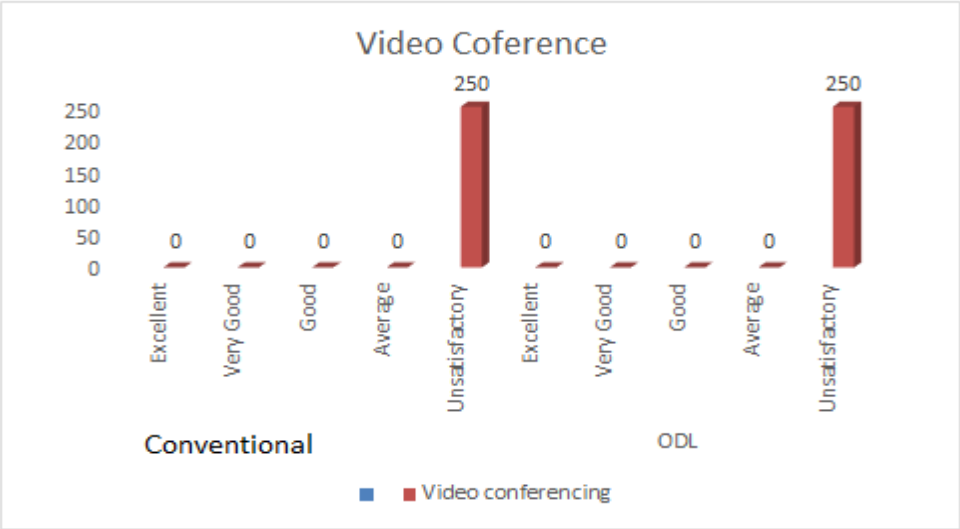


Figure 5.25: Graphical representation of the usefulness of video conference in conventional/ODL mode of education from teachers/counselors point of view.

5.4.3 Internet

From table 5.7 and figure 5.26 it has been found that 9.2% respondents of conventional study reported as excellent, 20% as very good, 40% as good, 20% as average, 10.8% are unsatisfactory in internet while in ODL system 5.6% as excellent, 12.4% as very good, 34.8% as good, 26.8% as average and 20.4% as unsatisfactory as reported by respondents and it implies that the conventional education system shows better performance than open and distance mode of education.

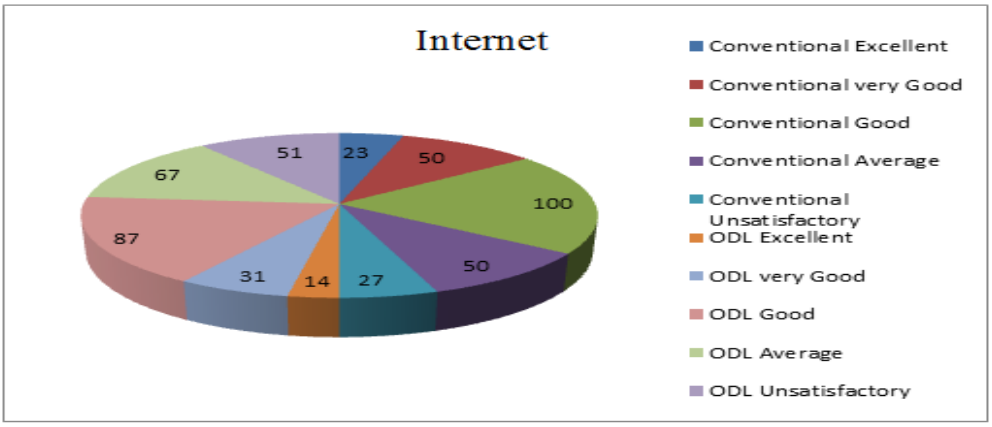


Figure 5.26: Graphical representation of the usefulness of internet in conventional/ODL mode of education from teachers/counselors point of view.

5.4.4 Radio

From table 5.7 and figure 5.27 it has been observed that in case of radio programme, no respondents of conventional study reported as excellent and very good, 10% as good, 12.4% as average, and 77.6% as unsatisfactory while in ODL system 4.8% as excellent, 5.6% as very good, 20.4% as good, 4.8% as average and 64.4 % as unsatisfactory as reported by respondents. As a result it can be concluded that the conventional education system shows better performance than open and distance mode of education.

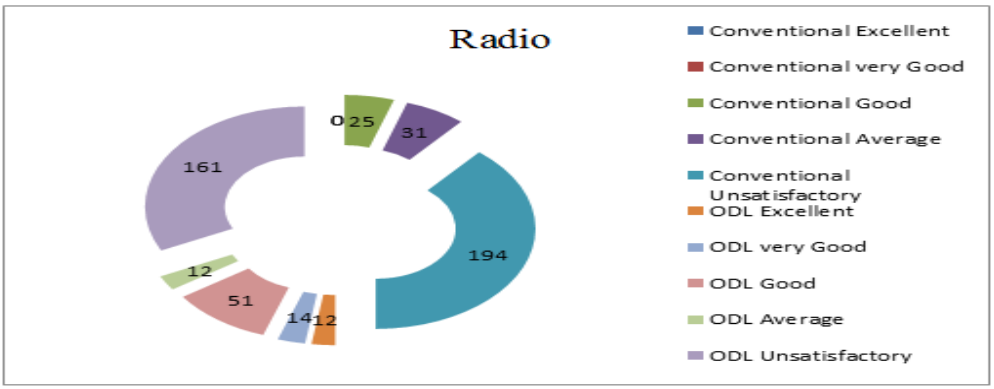


Figure 5.27: Graphical representation of the usefulness of radio in conventional/ODL mode of education from teachers/counselors point of view.

5.4.5 Television

From table 5.7 and figure 5.28 it has been found that, 4% respondents of conventional study reported as excellent, 22.4% as very good, 26.8% as good, 31.2% as average, 15.6% are unsatisfactory in television while in ODL system 2.4% as excellent, 20% as very good, 30.4% as good, 21.6% as average and 25.6 % as unsatisfactory as reported by respondents. It can be concluded that the conventional education system shows better performance than open and distance mode of education except percentage of good scale..

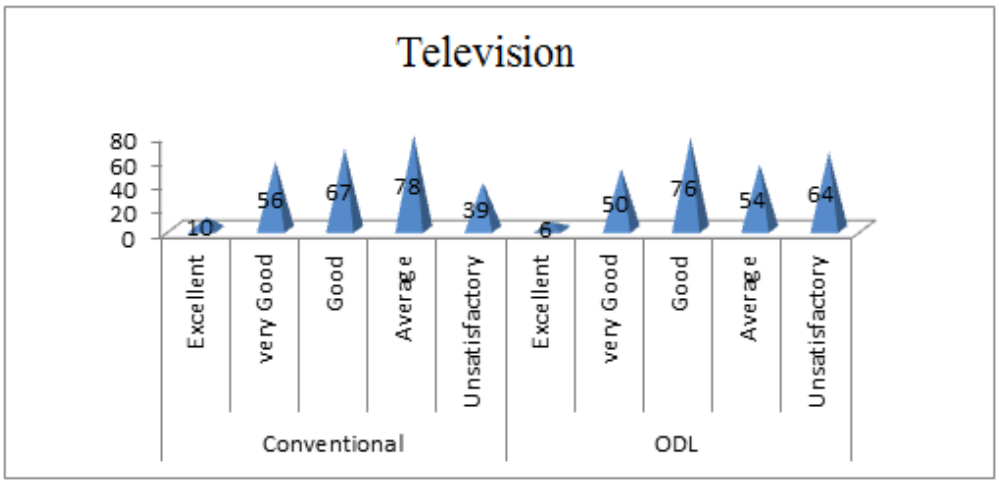


Figure 5.28: Graphical representation of the usefulness of television in conventional/ODL mode of education from teachers/counselors point of view.

5.4.6 Website

From table 5.7 and figure 5.29 it has been observed that, 10% respondents of conventional study reported as excellent, 26.8% as very good, 31.2% as good, 13.6% as average, 18.4% are unsatisfactory in website while in ODL system of education, 12% as excellent, 22.4% as very good, 23.6% as good, 19.2% as average and 22.8 % as unsatisfactory as reported by respondents. Hence the result implies that the conventional education system shows better performance than open and distance mode of education except in average percentage.

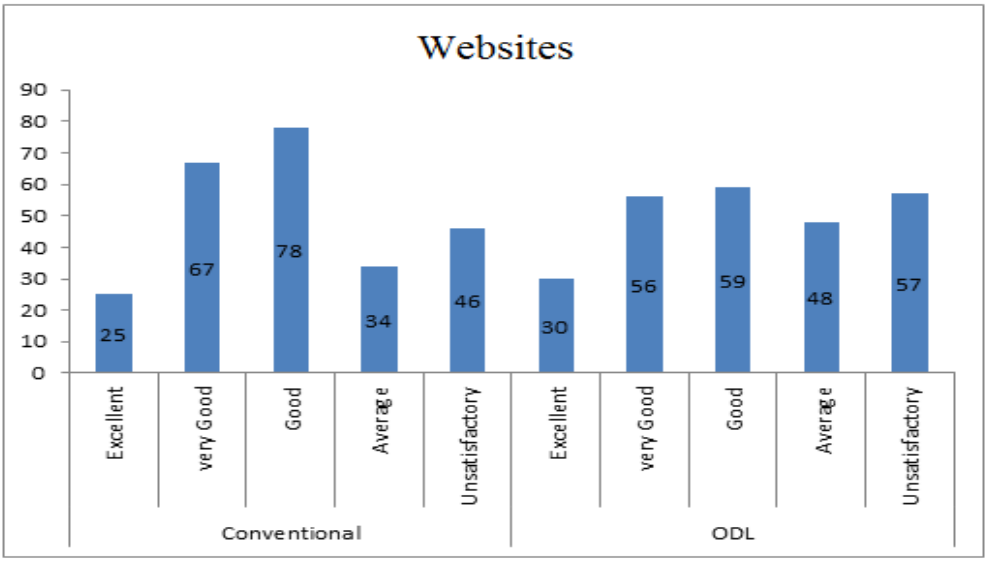


Figure 5.29: Graphical representation of the usefulness of website in conventional/ODL mode of education from teachers/counselors point of view.

5.4.7 Test of Hypothesis

H4:In case of the usefulness of ICT there is no significant difference between conventional system and ODL system of education.

T-Test

Table 5.8: t-value for the usefulness of ICT from teachers/counselors point of view

Course	N	Mean	Sd. deviation	t	df.	Sig.
CONVENTIONAL	250	14.04	1.253	4.686	498	.000**
ODL	250	13.42	1.658			

**Significant level is at P<0.01

The graphical representation of the mean value of T-test for the usefulness of ICT in conventional/ODL mode of education system from teachers/counselors point of view is as given below:

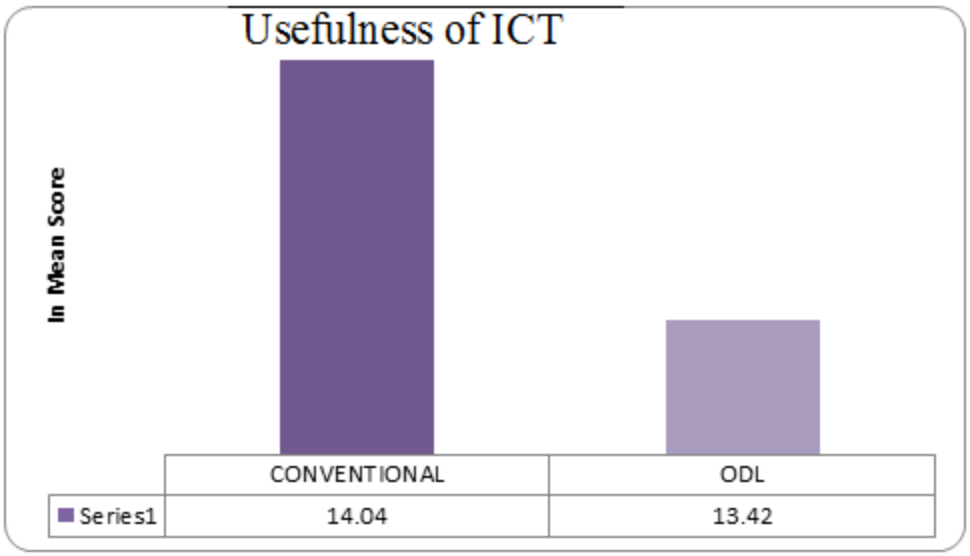


Figure 5.30: Graphical representation of the mean value of T-test for usefulness of ICT from teachers/counselors point of view.

5.4.8 Observation**:**In case of usefulness of ICT **t**he above table implies that the Conventional and ODL mode of education system has the mean scores 14.04 and 13.52, SD are 1.253 and 1.658 respectively. The t-value is 4.698, df=498 and P=0.000 is highly significant at 0.01 level. Thus it can be concluded that the usefulness of ICT in conventional system is better than ODL. Thus, the hypothesis can be rejected.

CHAPTER – VI

6. Introduction

The present study, conducted with the objectives to investigate the**"**Learner's cost effectiveness and quality in distance education –A study on select under graduate BBA, BCA and B.Com courses in Assam**"**. Taking into consideration some aspects like, the quality of conventional vis-a-vis ODL, the reasons for joining, effectiveness of text book/SLM, usefulness of ICT, cost effectiveness of existing under graduate courses in Conventional /ODL mode of education system. The data are collected through a set of schedules for learners and teachers/counselors are listed by descriptive techniques.

6.1 Major Findings:

The major findings that are obtained from the analysis and interpretations of the study are as follows:

The quality of structure of both the system of courses i.e. Conventional and ODL has the mean scores 26.37 and 21.76, SD are 1.281 and 2.886 respectively. The t-value is 29.156, df=498 and P=0.000 is highly significant at 0.01 level. Thus it can be concluded that the difference is highly significant and the quality of structure of the conventional course is better than quality of structure of ODL course.

The quality of support given by the teachers/counselors i.e. Conventional and ODL has the mean scores 27.14 and 19.79, SD are 2.33 and 2.564 respectively. The t-value is 45.921, 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 quality of the support given by the teachers/counselors is better than the quality of support of ODL course.

The quality of teacher/counselors in both the system of course i.e. Conventional and ODL has the mean scores 17 and 16.35, SD are 1.793 and 1.046 respectively. The t-value is 6.31, 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 quality of teachers in conventional course is better than quality of teachers in ODL course.

The quality of learning experience in both the system of course i.e. Conventional and ODL has the mean scores 14.05 and 13.5, SD are 1.287 and 0.909 respectively. The t-value is 6.916, 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 quality of learning experience of conventional course is better than quality of learning experience of ODL course.

It has been observed that in comparative view in both the system of course i.e. Conventional and ODL has the mean scores 33.87 and 31.43, SD are 5.305 and 4.054 respectively. The t-value is 7.309, 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 comparative view of the conventional course is better than quality of structure of ODL courses.

In comparative view in case of examination system in both the system of course i.e. Conventional and ODL has the mean scores 10.15 and 9.53, SD are 1.456 and 1.577 respectively. The t-value is 5.848, df=798 and P=0.000 is highly significant at 0.01 level. Hence it can be concluded that the difference is highly significant and the comparative view in respect of examination in conventional course is better than the ODL system.

In case of learner's attitude towards the quality of Conventional and ODL system of education has the mean scores 129.17 and 112.35, SD are 7.896 and 7.852

respectively. The t-value is 30.217, df=798 and P=0.000 is highly significant at 0.01 level. Thus it can be concluded that learners attitude towards the quality of conventional system is better than ODL system of education.

In case of reason of joining in both system of courses i.e. Conventional and ODL has the mean scores 8.77 and 10.85, SD are 3.553 and 4.975 respectively. The t-value is 6.829, df=798 and P=0.000 is highly significant at 0.01 level. Thus it can be concluded that the reasons of joining the ODL courses are higher than that of conventional courses.

In case of effectiveness of study material/text books both system of courses i.e. Conventional and ODL has the mean scores 13.39 and 13.95, SD are 2.774 and 2.295 respectively. The t-value is 3.069, df=798 and P=0.000 is highly significant at 0.01 level. Thus it implies that the the effectiveness of study materials/text book in case of ODL course is better than Conventional courses

In case of usefulness of ICT both the system of courses i.e. Conventional and ODL 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 usefulness of ICT in case of conventional mode of education is higher than ODL mode of education.

In case of cost effectiveness of both the system i.e. Conventional and ODL has the mean scores 5.95 and 3.69, SD are 1.321 and 1.702 respectively. The t-value is 20.32, df=798 and P=0.000 is highly significant at 0.01 level. Thus it can be concluded that the cost effectiveness of existing BBA,BCOM and BCA Courses under ODL system is better than Conventional system.

The mean value of correlation between quality and cost in conventional system are 129.17 and 5.94, sd. deviation 7.896 and 1.321 at Pearson correlation. 170**.

In case of conventional system of education the quality is directly proportional to the cost of the course that is, when cost increases quality is also increases from learner's point of view and which is significantly correlated at 0.01 level.

The mean value of correlation between quality and cost in ODL system are 112.35 and 3.69, sd. deviation 7.852 and 1.702 at Pearson correlation .042. In case of ODL quality is directly proportional to the cost of the course that is when cost is increased then the quality of the courses also increases from learner's point of view which is not significantly correlated.

The mean value of correlation between quality and cost in both the system are 120.76 and 4.81, sd. deviation 11.523 and 1.891 at Pearson correlation .487**. Thus in case of overall learner's point of view, the quality is directly proportional to the cost of the course that is when cost is increased the quality has also increased and it is significantly correlated.

In comparative view both the system of courses i.e. Conventional and ODL has the mean scores 35.82 and 32.63, SD are 5.897 and 4.164 respectively. The t-value is 7, df=498 and P=0.000 is highly significant at 0.01 level. Thus it can be concluded that the comparative view in conventional system from teachers/counselors point of view is better than the ODL system.

The quality in connection with examination system of both system of courses i.e. ODL and Conventional has the mean scores 8.58 and 9.03, SD are1.15 and 1.413 respectively. The t-value is 3.924, df=498 and P=0.000 is highly significant at 0.01 level. Thus it implies that the the comparative view in connection with examination system conventional is better than ODL system of education from teachers/counselors point of view.

In case of effectiveness of study material/text book in both the system of courses i.e. Conventional and ODL has the mean scores 16.69 and 16.68, SD are 2.086 and 2.31 respectively. The t-value is 0.061, df=498 and P=0.951 is not significant. Thus it can be conclude that the effectiveness of study materials / text book of Conventional mode of education has almost the same view in both the education system**.**

In case of usefulness of ICT in both the system of course i.e. Conventional and ODL has the mean scores 14.04 and 13.52, SD are 1.253 and 1.658 respectively. The t-value is 4.698, df=498 and P=0.000 is highly significant at 0.01 level. Thus it can be concluded that the usefulness of ICT from teachers/counselors point of view the conventional course is better than ODL course.

Table 6.1 :Consolidated statement of major findings :

Sl no	Parameters	Major findings
From learners' point of view		
1	The quality of structure of both the system of courses	The quality of structure of the conventional course is better than quality of structure of ODL course.
2	The quality of support given by the teachers/counselors	The quality of the support given by the teachers/counselors is better than the quality of support of ODL course
3	The quality of teacher/counselors in both the system of courses	The quality of teachers in conventional course is better than quality of teachers in ODL course.
4	The quality of learning experience in both the system of courses	The quality of learning experience of conventional course is better than quality of learning experience of ODL course.

5	The comparative view in both the system of courses	The comparative view of the conventional course is better than that of ODL courses.
6	The comparative view in case of examination system in both the system of courses	The comparative view in respect of examination in conventional system is better than the ODL system.
7	learner's attitude towards quality of courses in both the system of Conventional and ODL	The learner's attitude towards quality of conventional system of education is better than ODL system.
8	In case of reason of joining in both system of courses	The reasons of joining the ODL courses is higher than that of conventional course.
9	In case of effectiveness of study material/text books both system of courses	The effectiveness of study materials/text book of ODL system of education is better than conventional courses.
10	In case of usefulness of ICT in both the system of courses	The usefulness of ICT from learner's point of view in conventional mode of education is higher than ODL system of education.
11	In case of cost effectiveness of conventional/ ODL system of education	The cost effectiveness of existing BBA, BCOM and BCA Courses under ODL system is better than conventional system.
12	Correlation between quality and cost in convetional system	The quality is directly proportional to the cost of the course that is, when cost increases quality is also increases which is significantly correlated at 0.01 level

13	Correlation between quality and cost in ODL system	The quality is directly proportional to the cost of the course that is, when cost increases quality is also increases which is not significantly correlated.
14	Correlation between quality and cost in both the syetm	The quality is directly proportional to the cost of the course that is, when cost increases quality is also increases which is significantly correlated.
From teachers/counsellors' point of view:		
15	The comparative view both the system of courses	The comparative view in conventional system is better than the ODL system.
16	The comparative view in connection with examination system of both system of courses	The comparative view in connection with examination conventional is better than ODL system of education.
17	In case of effectiveness of study material/text book in both the system of courses	The effectiveness of study materials / text book of Conventional mode of education has almost the same with the ODL mode of education system
18	In case of usefulness of ICT in both the system of courses	The usefulness of ICT conventional course is better than ODL course.

6.2 Suggestion

Though the present study some points have come into the picture for the improvement and better prospects in the field of undergraduate courses in Conventional and ODL mode of education system . Some problems related to the students and staff also came to be known. For this, remedial measures are suggested to be implemented as soon as possible to improve the further status of courses like BBA, BCA and B.COM in Assam.

- Provision should be provided by the study centre for campus selection of deserving students for different jobs and for that mechanism should be developed in the distance education mode.
- More workshop and orientation programme to the counselors are required from the university so that counselors are aware of each and every nook of the courses and rules of the university.
- More courses should be vocational nature, which are more useful for rural, female and poor population to make them self-employed.
- Examination system needs to be improved that timely arrange the examination and timely declared the results.
- Library facilities, reading room should be available and that should be provided by the university and study centre.
- Distance education is a common venture of central and state government to educate its population in a mass and this education should be quality education.
- To improve the e-learning system, the university and the study centre should provide maximum ICT facilities to the distance learners. The university should provide the digital classroom facility, conference classes/video classes and CD of learning material.

- To improve the quality of the support given by the teachers/counselors in the distance education counseling classes should be provided in the evening shift of the working days in the study centre due to that students can also utilize the lab, library facility etc.
- More orientation programmes for counseling of the counselors should be provided by the distance education providing university.
- Inter university transfer facility should be provided by the authority for the distance learners to the conventional mode of education and vis-a-vis.

6.3 Conclusion:

The main idea behind distance learning is to reach out to people who are left-out of the conventional method of education. It gives opportunities to people who are caught in other things like job and family issues and have missed out on getting education of their choice. By allowing students with the facility to learn in more convenient locations and often at more convenient times, distance education provides educational opportunity to learners for whom education was unreachable earlier. It changes the traditional hierarchy among teachers and students and creates a more equal and open learning environment.

The present study reveals that the quality of Conventional/ODL mode of education system score over the ODL courses in terms of quality of structure of courses, quality of support given by the teachers/counselors as well as the quality of teachers/counselors, quality of learning experience, learners attitude towards to quality of courses.

The comparative view of both the system of courses and the examination system also reveals that the conventional education system is better than the ODL mode of education. Considering the reasons for joining, cost effectiveness and the

effectiveness of study materials, the ODL mode of education scores higher than the conventional mode of education.

Coming to the relationship between cost and quality of both the system, it has been found from the learner's point of view that when cost increases quality also increases in conventional system. This is significantly correlated. However in case of ODL system there is no significant correlation. A comparison between the two systems reveals that when cost is increased than the quality has also increased. This is also significantly correlated.

From the comparative point of view of teachers/counselors ,the conventional system again scores higher than the ODL system. With respect to the examination system the comparative view of teachers/counselors reveals the conventional system to be better than the ODL system.

The effectiveness of study materials/text book has been found to be the same in both the systems. However, the usefulness of ICT is found to be better in conventional system.

Therefore, the present study has found that the cost effectiveness and quality of conventional as well as ODL mode of education system has had an impact on select under graduate BBA, BCA and BCOM courses in Assam. However, in some aspects already mentioned above, the conventional system has made a more pronounced impact.

However, the potential for growth of distance education is immense. The ever growing need for an educated workforce in the global forum requires a system of education that will facilitate its reach to all learners .Thus education provided under distance mode should be able to strengthen the quality of structure of courses, quality of the support given by the teachers/counselors, quality of

teachers/counselors, quality of learning experiences, examination system and usefulness of ICT, use of virtual class room, web learning and online evaluation system.

In the case of Assam , distance education assumes significance in the years ahead because of its cost effectiveness and its facilitation for independent learning by working adults. There is thus an imperative need for the development of distance education to fulfill the ever-growing need of creating an educated workforce.

6.4 Scope for Further Research

The research work is just the steps of a long process in which ones string joints another to form a chain to eradicate the problems in a particular field. Hence, the researchers take some particular area or fields for their investigations and the investigator suggest some problems which are for further research work and may also stimulate prospective research workers to undertake some useful research. The few mains points are as follows

- This research can be implemented by other statistical techniques which will give more accuracy in the hypothesis.
- This can be expanded in greater India considering all undergraduate courses and their cost effectiveness.
- A study can be conducted for functioning of the Institutions in both conventional and ODL mode of education.
- A study may be conducted to ascertain the level of satisfaction of distance learners with distance education courses.
- Comparative studies may be undertaken between conventional and distance education courses in relation to providing professional courses.

- Studies may be carried out to investigate cost effectiveness of various distance education courses.
- Studies may be conducted to identify various problems faced by distance learners during their course of study.
- Studies may also be planned and executed to explore the influence of motivational factors on accomplishment of distance learners.

REFERENCES

A. Books

Ahsan, Q. M. G. and Ahmood, S. M. M. (2005).Analyzing Study Habits of Distance Learners: A Case Study of Bangladesh Open University. Indian Journal of Open Learning. Vol. 14(1), Pp. 59-69.

Assefa, S. (2006).Determining the Conduciveness of Distance Learning Environment: A Case Study of Eastern Ethiopia.Indian Journal of Open Leaning, Vol. 15(2), Pp.177- 189.

Amritavalli, R. (1987) Role of audio-visual aids in distance education in B. N. Koul, et al (Eds). Studies in Distance Education. New Delhi: AIU and IGNOU.

Amutabi, M. N. & Oketch, M. O. (2003): 'Experimenting in distance education: the African Virtual University (AVU) and the paradox of the World Bank in Kenya', International Journal of Educational Development 23(1), 57-73.

Agarwal ,G.C. (2002): Theory and Principles of Education Philosophical and Sociological Bases of Education,Vikash Publishing House Pvt. Ltd. N .Delhi 110014.p.9

Akhtar , et al (1998) : An introduction to Higher Secondary Education, Assam Book Depot Ghy- 1 p.81.

Anand, S(1979). University without Walls, New Delhi, Vikas Publishing House Pvt.Ltd. Vol-1, Pp 109-110.

Agrawal, P.D(1986): "Unit Cost variations in Central/Traditional and Distance Education: A Comparative study of two entrepreneurial Development Training Programmes", Paper Presented in the National Conference of Distance Education, Ahmedabad No. 9-10.

Amundsen, C. (1993): "The evolution of theory in distance education‘, pp. 61-79 in D. Keegan (ed.) Theoretical Principles of Distance Education, London: Routled.

Aggarwal Y.P. (1998): Statistical Methods, Concepts, Application and computation third revised and enlarged edition, New Delhi.

Anderson, T. (2003): Modes of interaction in distance education. Recent developments and research questions.In M.G. Moore & W.G. Anderson (Eds.), Handbook of distance education (pp. 129-144). Mahwah, NJ :Lawrence Earlbaum Associates.

Baruah,Jotin(2006): An Introduction to Education ,Lawyers Book stall, Bhaskar Dutta Baruah 2006,LBS Publication Pp 111-113.

Berj, Holmberg(1990): Theory and Practice of Distance Education,Routledge II New ,. Feltes Lane London EC4pEE pp. 152-158.

Biswal, B.N. (1979). A study of Correspondence Education in Indian Universities.An unpublished Ph. D. Thesis, CASE, M. S. University, Baroda Pp 121-124.

Boucher(1973): Spes in arduis- A history of University of the South Africa , Pretoria, University of south Africa Vol -3. Pp 113-114..

Bhattacharya, I. & Sharma, K. (2007): 'India in the knowledge economy – an electronic paradigm', International Journal of Educational Management Vol. 21 No. 6, pp. 543-568.

Bottino, R. M. (2003): 'ICT, national policies, and impact on schools and teachers' development' 'CRPIT '03: Proceedings of the 3.1 and 3.3 working groups conference on International federation for information processing', Australian Computer Society, Inc., Darlinghurst, Australia, Australia, 3-6.

Balasubramaniam, T (1976: Correspondence Course for Teacher Education in Correspondence Education, Indian University Association for ContinuingEducation, New Delhi.

Balasubramaniam, S (1986): "The status of correspondence course in India", University News, Vol. XXIV, No. 42, Nov.8.

Baath, J., Flinek, R. and Wingdahl, A. (1975-7) Pedagogical Reports, Lund: University of Lund (Department of Education).

Baath, J. (1982) TJistance students' learning - empirical findings and theoretical deliberations', Distance Education 3(1), 6-27.

Borgohain, M. G. (2009). Distance Education under IGNOU in Assam: its functioning and achievement. Unpublished thesis, Dibrugarh University V0l-2, Pp115-117.

Black, Thomas(1993): Evaluating social science Research An Introduction, Sage Publication Ltd. London ,pp. 1-4.

Bakliwal, B.C. (1988). Correspondence education scheme in Rajasthan: A case. Journal of Educational Planning and Administration.Vol.2(3 and 4).

Bates, A. (1989): Diversity of chaos in Canadian distance education. A view from overseas in R. Sweet (Ed.), Post-Secondary distance education in Canada: Policies, practices, and priorities. Athabasca University and the Canadian Society for studies in Education.

Chaube, S .P. et al (1994): Philosophical and sociological foundation of Education, 1998, Publisher Vinod Pustak Mandir, Agra 2 . pp. 24 430-431.

COL,(1991) : A Compendium of activities ,Vancouver, Canada.

Debi, Renu(1987): Progress of Education in Assam,R Kumar for Omsons Publication Western Book Depot. Panbazar ,P.-10.

Desi, A.N.(1995): Research Methodology in Management,Ashish Publishing House ,p.66,82.

Dutta. S.C.(1987): Adult Education in the third world criterion ,Publishers N. Delhi-64,p.10.

Dinsdale, W.A(1953): Inspection and development of postal titution . The Statist April,p 572-575.

Daswami , C.G.(2000): Adult Education In India, Published by U.N. Educational Scientific and Cultural Organisation, New Delhi 57,2000,p.3 , 68.

Desai.A.N.(1995): Research Methodology in Management , Ashish Publishing House , p.66.82.

Dutta , Ruddar:(1994): Cost of Distance Education in India National Institute of Educational Planning and Administration, South Asian Publishers N. Delhi 02.pp.155-156.

Dutt, R(1978): "Costing of Correspondence Education, Need for a Rational Policy", Winged Words, School of Correspondence Courses and Continuing Education, University of Delhi.

Das, M. (1992).Approaches to learning and academic performance of students in traditional and open universities: A comparative study. Unpublished Ph. D. Thesis.(Edu.), Jawaharlal Nehru University.

Das, M. (2011). Academic counselling in distance education withfocus on Innovation: The need and expectations of IGNOU learners. Indian Journal of Open Learning, Vol. 20(3), Pp.191-216.

Dutt R., (1976). Correspondence Courses in India, in Winged Words, School of Correspondence Courses and Continuing Education, University of Delhi.

Goel, Aruna(2000): Distance education in the 21st Centure, Deep and Deep Publishication Pvt. Ltd, N Delhi-27.pp.172-173.

Goode, Willams J.(1952): Methods in social Research , Me Graw Hill Book Company, Me Graw Hill International Edition Social Series pp 136, 184-189.

Goswami Renu(2000): A text book on Trends in Education, B Dand and Co .Satribari ,Ghy -8, p. Ghy -8,152,157.

Gold Marten, ed. (1996): Cost-Effectiveness in Health and Medicine. New York: Oxford University Press.

Gautom, R. (1990) A study of success in distance learning system in relation to some key learned and institutional variables. Unpublished Ph.D Thesis, Education ,Kurukshetra University.

Glasgow, F. (2011).Needs Assessment in Open and Distance Learning (ODL): Case of the Institute of Distance and Continuing Education (IDCE), University of Guyana. Indian Journal of Open Learning, Vol. 20(1), Pp.15-30

Gaba, A. (1999). Distance Education and job market: a case study of IGNOU graduates. Indian journal of Open Learning, 8(3),pp.255-263. New Delhi :IGNOU

Gangapi, K. &Chanraiai , E.(2004) .Responses of learners to technology-based learning in ODL: A Case Study of Dr. B.R. Ambedkar Open University . Indian Journalof Open Learning.Vol. 13(1), 87-96

Gaba,A. & Sethy, S. S. Learners' Perception towards Information and Communication Technologies: A Case Study of Indira Gandhi National Open University. Indian Journal of Open Learning.Vol.19(3), Pp.143-157.

Gaba, A. (2007).Online Graduates and Job Market: A Case Study of BIT Programme of IGNOU .Indian Journol of Open Learning, Vol. 16(1). 47-57

Gaba, A. (13-17 July, 2008) Distance education and Human Resource Development: A Tracer Study of Vocational Educational Programme of IGNOU. Seminar Paper presented in Pan Commonwealth Forum-5, organized by Commonwealth of Learning, Canada at University of London, U.K.

Gaba. A. (June, 2004). The Role of Distance Education in the Human Resource Development of India. Seminar paper presented at PCF3 held at Durban, South Africa.

Hussain, I.(2013) A Study of Learners' Reflection on Andragogical Skills of Distance Education Tutors. International Journal of Instruction .Vol.6, No.1. Pp.123-138. Retrieved from http://www.e-iji.net

Harris, W. J. (1975). The distance tutor in correspondence education.In the system of Distance Education .Paper presented to the tenth international conference of Brighton, England (12-16th May).Malmo,Sweden: Hermods International Council for correspondence education.

H.C.S. Rathore (1995).Personal Contact Programmes of Correspondence Institutes in India : An Evaluation. Indian Journal of Open Learning.Vol. 4, No. 1, Pp. 15-21,

Jamandre , N. K. (2011) .Quality Assurance in Distance Education achieved in the Philippines . Asian Journal of Distance Education.Vol.9, No-1, Pp. 90–97. Retrieved from http://www.AsianJDE.org

Jayagopal, R. (1987) Open University system and weaker sections: A prototype programme for marginal farmers in B. N. Koul, et al (eds). Studies in Distance Education. New Delhi: AIU and IGNOU.

Kothari , C.R. (1990): Research Methodology Methods and Techniques, V.S.Johri for Vishwa Prakashan, New Dehli -2,p. 62.

Kachroo, B.K. (1999). Distance Education Programmes at College and University Levels in Jammu Region: An Evaluation Study. Indian Journal OpenLearning.Vol. 8. N0. 3 .Pp. 293-305.

Khan Inayat (1989): Teaching at a Distance, Hardeep S . Juneja Amar Prakashan ,N .Delhi-35,pp.3-5.

Khan, N. (1991) Effectiveness of distance education programme with reference to the teachers' training course of Kashmir University. Unpublished Ph.D (Edu.)Thesis, University of Kashmir.

Kalvati, P. (1991) .A study on foundational approach to teaching learning process in distance education.Unpublished Ph.D Thesis , Osmania University, Hyderabad.

Kumar ,Mukesh (2006): The status of distance education in Assam,Published by Mahaveer and Sons, N . Delhi -02,p. 48/59.

Keengan D (1983): Review of Daniel et al. Learning at a Distance. A world perspective, p.501—3.

Kozma, R. (2005): 'National Policies That Connect ICT-Based Education Reform To Economic And Social Development', Human Technology Volume 1 (2), October 2005, 117-156.

Kumar, M. (2002).The status of distance education in Assam. Unpublished Ph. D. Thesis, Gauhati University

Kuruba, G. (1999).Distance Education in Developing Countries: A Case ofBotswana. Indian Journal of Open Learning, Vol. 8(1), Pp.39-47.

IIyi V.V.(1983): The USSR Financial and Economics Institute of Distance education Vol.4. No 2.p. 142-148.

Lama, S. &Kashyap , M. (2012). Empowering the human resources and role of distance learning.Turkish Online Journal of Distance Education-TOJDE. Volume: 13 Number: 3 Article 17.Pp.239-246.

Lengrand, Paul(1975): An Introduction to Life Long Education ,Croom Helm pvt. Ltd London SWII printed in the UK by Riddles of Guilfund pp.51-52.

Lim, C. P. & Hang, D. (2003): 'An activity theory approach to research of ICT integration in Singapore schools', Computers & Education 41(1), 49--63.

Lim, C. P. & Chai, C. S. (2004): 'An activity-theoretical approach to research of ICT integration 13 in Singapore schools: Orienting activities and learner autonomy', Computers & Education 43(3), 215--236.

Mwansa,: Management of Distance teacher Education in Zanbia by Vineent Chiyongo, Electoral Roll records from 2010-2016.

Mani, G. (1987) "Evaluation of Distance Education", in B N Koul, et al (ed),Studies in Distance Education, Association of Indian Universities and Indira Gandhi National Open University, New Delhi.

Manjulika S V and Venugopal Reddy: Distance Education in India. A Model for Developing Countries. Associated Business Corporation Dhanmondi R/A Dhaka—1205,Bangladesh.

Mahmood, A.Mahmood , S. T. & Malik, A. B. (2012). A comparative study of student satisfaction level in Distance Learning and live classroom at higher education level.Turkish Online Journal of Distance Education-TOJDE Volume:

13 Number: 1 Article 7.Pp-128-136. Retrieved fromtojde.anadolu.edu.tr/tojde46/articles/article_7.htm.

Mason, R. (2000): 'From distance education to online education', The Internet and Higher Education 3(1-2), 63-74.

Maxwell, Leigh; And OthersTitle: Graduate Distanc Education: A Review and Synthesisof the Research Literature.

Manohar, K.M.(Ed.) Reaching the Unreached through Open and Distance Learning Issues and Strategies..IDEA, Warrangal: Vol.8.

McGorry, S. Y. (2003), 'Measuring quality in online programs', The Internet and Higher Education 6(2), 159-177.

McGorry, S. Y. (2002): 'Online, but on target? Internet-based MBA courses: A case study', The Internet and Higher Education 5(2), 167-175.

Mehta, S. &Kalra, M. (2006): 'Information and Communication Technologies: A bridge for social equity and sustainable development in India', The International Information & Library Review 38(3), 147--160.

Mooij, T. (2007): 'Design of educational and ICT conditions to integrate differences in learning: Contextual learning theory and a first transformation step in early education', Computers in Human Behavior 23(3), 1499--1530.

Mackenzie, N. Postzate, R. & Scuphan, J. (1975) Open Learning: Systems and Problems in Post Secondary Education, Paris: UNESCO.

Mutanyatta, J. (1989). Formative Evaluation of Distance Education: A Case

Study of the Certificate in Adult Education at the University of Botswana.Journal of Distance Education / Revue de I'enseignement a distance Sprtng/ Prentemps.Vol. IV, No. (1), Pp. 36-45.

Makwana , R. H.(2011).Role and Challenges in Distance Education in India.International Journal of Education and Social Sciences (IJESS) Vol. 3, No. 1.

Medhi, D. (1995). An Evaluative study of the Distance Education System with special reference to IGNOU and PGCS, GU.Unpublished M. Ed. Dissertation, Gauhati University.

Nair, S. P. (2012). Towards understanding the successful learner: A case study of IGNOU. Turkish Online Journal of Distance Education-TOJDE Volume: 13 Number: 2 Article 19.Pp.332-335.

Nair, T.K.D(2004): School Planning and Management ,Shipra Publications 115 A Vikash Marg Delhi-92, p. 94.

Najafi, Farajollahi, M, Noruzzadeh, R and Sarmadi, M. R.(2012). A Conceptual Model for Human Resource Development in Iran's Distance Education System. European Journal of Experimental Biology. 2(6):2320-2324. Retrieved from www.pelagiaresearchlibrary.com.

Narayan, P. (2004). Programme evaluation under Open Learning System: Anevaluation of CLD programme of IGNOU. Indian Journal of Open Learning, Vol. 13(9).Pp.313-322.

NG(2000): Locus of control and Metacognition in and distance learning. Ozdemir, Z. D. &Abrevaya, J. (2007): 'Adoption of Technology-Mediated Distance Education: A longitudinal analysis', Information & Management 44(5), 467-479.

Pettartion, H (1978): I sat in H.G. Well's Chair , in teaching at a Distance, 13.p. 14.

Pugazhenthi, G. (1991)30.A study of teacher education programme throughcorrespondence system in Madurai Kamaraj University. Unpublished Ph.D Thesis, M. S. University of Boroda, Boroda.

Prasad, V. S. (1987).APOU learner profile: A case study in B. N. Koul et al(Eds.). Studies in Distance Education. New Delhi:AIU and IGNOU.

Peters D.(1973): Die Die didaktische struktur der fernunterrichts, ,Weinheim and Besel;Beltz.

Pahad, A. (2000). A study on opinions of female learners regarding distance education.Unpublished Ph. D. Thesis, M. S. University of Boroda.

Plomp, T.; Pelgrum, W. J. & Law, N. (2007): 'SITES2006—International comparative survey of pedagogical practices and ICT in education', Education and Information Technologies 12(2), 83-92.

Panda, U .Nath(1988): School Management , Ashish Publishing House, N.Delhi 26,pp.1-2.

Pandu, G.C.(1989):Research Methodology in Social Science,II.Kumar for Anmol Publication N. Delhi 02,p.25.

Parasar,B.P.(2005): A text book of Adult Education ,Demirant Publishers and Distributiors ,N. Delhi 110002,p 27,148,150.

Perry, Walter. (1977)The Open University.Washington: Jossey- Bass Publishers.

Rao K.K.(2003): Distance Education Systems, Published by S..B.Nangia A.P.H. Publishing Corporation 5, Ansari Road, Daryaganj, N. Delhi-02,p.52.

Roa V.K(1992): Contemporary Concept of Education,Ajay Verma Commonwealth Publishing , Ansari Road, New Delhi-02,p.

Rathori, H.C.S(1993): Management of Distance Education in India, S.B. Nangia for Ashish Publication House,N Delhi 110026,p.13,73,44.

Rawat, R.L.(1954): History of Indian Educational , Ram Prasad and Sons, Agra - 03,p.263.

Reddy, R. G. (1987). Distance Education: what, why and how? in B. N. Koul, et al (Eds.). Studies in Distance Education. New Delhi: AIU and IGNOU.

Reddy G.Ram(1988) : Management of Distance Education ,New Delhi, higher education ,Kogan page London page 5.

Rumble , G (1989): The Role of Distance education in national and international development . An overview , Distance education voi.10.No .1 p 83-84.

Rayner. S.A. (1949) : Correspondence education in Austrila and New Zealand Melborune University ,Melbourne.

Rovai, A. P. (2003): 'A practical framework for evaluating online distance education programs', The Internet and Higher Education 6(2), 109-124.

Rumble G. (1989): Open Learning , Distance learning and the misuse of language Open learning , vol.4.No.2.p.28-36.

Rumble G(1997): Defination of Distance Education and e-learning .Thomas and Martin(1996): Distance Education in Historic Prospective.

Sharma, R. A(1985): Distance Education , Loyal Book Dept. Meerut.

Store,E Chick J.(1984): Reaching out n queensland; a decentralized approach , in smith,k(ed)Diversity down under Toowoomba, Darling Downs Institute press.

Safaya,R.N.(1996): Development of Educational Theory and Practice,Dhanpatri Publishing Company Delhi-32,p.2.

Sukumar, B. (2000). Academic Counsellors' Awareness of Distance Education Instructional Concepts and Practices.Indian Journal of Open Learning, Vol. 9(1), Pp. 87-91.

Sreekumar, S. S. (2000) Distance Education and Human Resource Development. Indian Journal of Open Learning.Vol.9(2).169-178.

Sharma, D.P.(2002). Teacher Education Programme of IGNOU: Student Teachers' Perception. Indian Journal of Open Learning, Vol.11(3), 335-346.

Sarma ,S.R.(1998) : Planing and Evaluating of Adult Learning, Published by R. Kumar Omsons Publisation,T-7 N. Delhi 27, p. 42.

Singh Mubarok : Towrads better practice in distance education.

Sarma ,B.N.(2005): Class Administration, Published by- Ajay Verma for Commonwealth, p.16.

Sukala , P.D(1983): Administration of Education in India, Vikas Publishing House Pvt. Ltd. N. Delhi-02,p.5.

Saxena, A. (2000) .The Distance Learner-A Sketch from India. ICDE Asia

Souvenier, Indira Gandhi National Open University,New Delhi.

Singh, J. (1981). A Study on Correspondence Education Programme of thePatrachar vidyalaya .Centre for Educational Technology, NCERT, New Delhi.

Sharma, R. (2003): 'Barriers in Using Technology for Education in Developing Countries', IEEE 0-7803-7724-9103.

Sampong, K.A. (2009) .An Evaluation of a Distance Teacher EducationProgramme in a University in Ghana.

Satpathy, A.(1989) A study of fure of Distance Education System by 2001 through Cross Impact Matrix(CIM) Technique, unpublished M.Ed. Dissertation, DAW,Indore.

Tawo, R. E. et al (2010).Role of Open and Distance Learning in the Attainment of United Nations Millennium Development Goals (MDGs) in Cross River State, Nigeria. Indian Journal of Open Learning, Vol. 19(1), Pp.23-31

Takwale, R., Dimensions and extensions of distance and open educational systems in B. N. Koul, et al (Eds).Studies in Distance Education. New Delhi: AIU and IGNOU.

Ushadevi, M. D. (1994). Are Contact Session Necessary in Distance Education? A feedback to IGNOU.Indian Journal of Open Learning, Vol. 3 No-1,pp.16-21

Villi, C. (2003).Study on Knowledge, Attitude Perception and Expectations (KAPE) of the Women Learners of Open University.Indian Journal of Open Learning.Vol.12(1), 95-100.

Vadnere, R. V. et al (2003). Certificate in Beauty Parlour management programme: a case in Vocational Education through Distance Education Mode. Indian Journal of Open Learning.Vol.12, No. (1),pp.77-93

Venkataiah.N.(1989). Preparation of course materials for distance education: courses team approach. Indian Educational Review, Vol. 24(4),Pp.39-46.

Vijaylakshmi, P., (1994) .Role of distance education in Empowerment of women-A case study of Dr. B.R. Ambedkar Open University. Unpublished Ph.D.(Edu), Osmania University.

[B] Reference Journals

Atkinson ---Distance education technology and media utilization – international journal of international technology and diastance education article 01-aug 10.

Chickering and Gamson- Distance education: A system review, 3rd edition new York in 1987.

COL --- Perspective on distance education: Towards a culture of quality distance education vol 10 no 4 1997.

Cooks, sum- distance education and developing world, European journal of education vol-18 no 4. Blackwell publishing, pp 329-323.

Das, prasenjit(2012) journal of information and knowledge management technology vol2 no 1 Nov. www. Ii.stc.org.

Davison, M, Mupinga (2005) university News: a weekly journal of higher education vol-49,p.52.

Deshpande and Mugridge - The journal of open and distance learning in 1994 oct01.

Des, Mamata (1992): Approach to Learning and academic performance of students in traditional and open university – a comparative study M.B. Buch ed , 5th Survey of Educational Research 1988-92. Vol. Ii, NCERT, Ashish Publishing House.

Edge w. danniel (2000): distance education – expanding learning opportunity wildlife society bulletin, vol.28 no.3 allen press publishing servicess, pp 5232-5233

Gautam, Renu(1990) : A study on the success in distance learning system in relation to some key learned and instructional variables. M.B. Buch ed, 5th Survey of Educational Research 1988-92 Vol. Ii. NCERT, New Delhi- 16, may 2000.

Gupta (1982): A study on the management of Distance Education Institution in H.C.S. Rathori's Management of Distance Education in India.

G.(1991) : A study of teacher education programme to correspondence system in M.K. University, Boroda.M.B. Buch ed, 5th Survey of Educational Research 1988-92. Vol. II, NCERT, Newdelhi-16 2000.

Gandhe, s.k (2009)- quality assurance in opemn and sistance learning in india, case study on symbiosiss centre for distance learning, india, pune

Hulsman, thomas(2000) : the cost of open distance learning. A handbook, website www. Uni. Oldenburg.de

Koul(2006) : Quality assurance and quality integrator in open and distance education, chapter 2

Mahajan, R.K. (1993): Apsychometric study in the performance of distance Learning professor , Universal School of Open University, Punjab, Seminar held at IIT Kanpur, mahajan_krm@yahoo.com.

Mukhapadhya and Sujata (1988): Astudy on the management of Distance Education Institution in H.C.S. Rathoris's management of Distance Education in India, 1993, Ashish Publishing House.

Mahajan, R.K. (1993): A psychometric study in the performance of distance Learning professor, Universal School of University, Punjab, Seminar held at IIT Kanpur, mahajan_krm@yahoo.com.

Nunnally J.C. 1978 Psychometric Theory, Edition Mc Grow-Hill, New York

Oisgaard,John n. (1987) : The importance of Distance Education , Programme on Enrolment Patterns Journal of Education, for Library and Information, Published by – Association for Library and Information of Science Education Vol. 27,No. Spring, pp, 272-279.

Olsgaard, John N. (1987): The Importance of Distance Education, Programme on Enrolment for Library and Information, Published by – Association for Library and Information of Science Education Vol.27.No.4, spring, pp.272-279.

Perraton , Hillary (2010) : Teacher Education- The Role of Open and Distance Learning, Visiting fellow, Institute of Education, University of London, Published

by Commonwealth of Learning 1055, West Hastling Suite 1200, Vancouver British Columbia Canada V.6E2E9.

Perraton, Hillary(2010) : Teacher Education- THE Role of Open and Distance Learning , Visiting Fellow, Institute of Education, University of London, Published by Commonwealth of Learning 1055, West Hastling Suite 1200, Vancouver British Columbia Canada V.6E2E9.

Phels Ruth(1991): Advance Technology Applied to Training Design – Distance Learning, published by springers.

Open and Distance Learning ,Trends, Policy and Strategy considerations

UNESCO, 2002 , France 2003/WS/50

Richardson, T.E. John et.a l (1999): Approach to studying in Distance Education. Higher Education, 37.No. 1. Published by Springer, pp.23-55.

Robinson --Distance education technology and media utilization – international journal of international technology and Diastance education article 31-aug 15

Richardson,T.E. John et. Al (1999): Approach to studying in Distance Education. Higher Education, Vol. 37. No. 1. Published by Springer, pp.23-55.

Saikia, Dipankar (2011): Asian Journal of Distance Education – The Asian Society of Open and Distance Education, Vol.9, No.2.

Saikia, Dipankar(2011) : Asian Journal of Distance Education- The Asian Society of Open and Distance Education, Vol. 9, No.2.

S.S. (1988) : Preparing a database for design and developing a post graduate diploma in teaching of English for the specific purpose of distance learning programmes for teaching English in Professional Institutes in India – Independent study ,M.B. Buch ed 5th Survey of Educational Research 1988-92. Vol.ii , NCERT, New Delhi-16, May2000.

Sahoo (1989): A study on the production of course materials for the distance learners in H.C.S.Rathor's Management of Distance Education in India. 1993, Ashish Publishing House.

Seven principle for good practice in undergraduate education – an international journal of distance education crews-0315 in 1983.

Tait (1997): Reflection of students support in open and distance learning – International review of research in open and distance learning vol-4, no-1.

Wei, Yuan Zhang and Venkaiah, V. (2000), Malaysian journal of distance education (I), pp.1-14

Wishart, J. M.; Oades, C. E. & Morris, M. (2007): 'Using online role play to teach internet safety awareness', Computers and Education 48(3), 460-473. Journals .

GOA-III ,23-25 Jan 2005, International conference on promotion of open schooling.

SCHEDULE FOR LEARNERS/STUDENTS

Dear Students/learners-

We have taken a research project on title " **LEARNER'S COST EFFECTIVENESS AND QUALITY IN DISTANCE EDUCATION – A STUDY ON SELECT UNDER GRADUATE BBA, BCA AND BCOM COURSES IN ASSAM**''. In this regard, you are requested to feel free to express your views with respect to the following schedule. Your views will be kept secret and will only be used for research purpose. I hope you will co-operate to accomplish the project.

(Please (√) in appropriate box or explain as required; use separate sheet if space is insufficient)

1.Name of study center /college

……

2. Name of Learners ……

3.Address of learners/students .....

……..

4. Name of the Professional Programme .....

BBA □ BCA □ B.COM □

5. Socio-economic status of the Respondent.

i) Gender: Male □ female □ ii) □ Age □ years □

ii) Marital status: Married □ Single □

iii) Religion: Hindu □ Muslim □ Christian□ others □

iv) Community: SC □ ST(H) □ ST(p) □ OBC□ GENERAL □ OTHERS□

v)Occupation: Private service □ Govt. service□ Trade/Business □ Housewife □Farmer □ Students □ Others □

6.Educational background at the time of joining the Courses:

BPP □ HSSLC □ Others □

7. Total Annual Family Incomes:

Below -- 50,000 □

50000 -- 100000 □

100000 – 150000 □

150000 -- 200000 □

Above -- 200000 □

8. Your current stay belong to Rural □ Urban □ Metro □ .....

9. Cost incurred for acquiring ODL/Conventional mode of education **(Put √ MARK)**

Items	**Conventional mode**		**Distance mode**	
	costly	**Less costly**	**Costly**	**Less costly**

	Yes	No	Yes	No	Yes	No	Yes	No
Cost incurred for text books/SLM								
Cost provided for transportation								
Cost incurred for accommodation								
Cost incurred for seminar/workshop								
Cost incurred for excursion/fieldtrips								
Cost incurred for library								
Cost incurred for laboratory								
Cost incurred for computer lab								
Cost incurred for technology								
Cost incurred for information & communication								

10. Do you consider ODL mode of professional education is cost-effective

Yes □ No □ No reply □

10. Reasons for joining ODL/Convention mode of education. **(Put √ MARK)**

Reason for joining	**Conventional mode**		**Distance mode**	
	Yes	**No**	**Yes**	**No**
Economic				
No-age bar-				
Give quality education-				
Procedural delay-				
Counseling /class not compulsory-				
Provide exam oriented education-				
Systematic regular study-				
Chances to get good job through campus interview-				
Provide opportunity for Extra-curricular activities-				
Easy to get admission-				
Provide learning opportunity while you earn-				

Provide excellent study materials and other support services-				
Offer valid degree-				
Self learning is innovative and creative-				
Flexibility of time-				
Non –availability of courses-				

12.**Effectiveness of Text book/ Study Materials of ODL VS Conventional: (Put Grade MARK)**

Excellent	Very Good	Good	Average	Unsatisfactory
5	4	3	2	1

Interaction of the learning materials	CONVENTIONAL	DISTANCE EDUCATION
User Friendly		
Real life situation analysis		
Interactive		
Self-Instructional		

Easy and lucid language		

12. a) Do you study SLM meant for ODL learner

Yes □ No □

b) Do you study textbook meant for conventional learners

Yes □ No □

15. Quality of the structure of the course: **(Put Grade Mark)**

Excellent	Very Good	Good	Average	Unsatisfactory
5	4	3	2	1

Course structure	CONVENTIONAL	DISTANCE EDUCATION
Clear learning goal		
Realistic learning goals		
Comprehensive analysis of cognitive fields		

Includes recent literature		
Adequately connected to relating fields		
Interesting subordinate subjects		
Helps skills development		
Caters for a holistic development of the field		
Content - goal relation		

16. Quality of support given by the Teacher / Academic Counselor: (Put Grade Mark)

Excellent	Very Good	Good	Average	Unsatisfactory
5	4	3	2	1

Support of the teacher	CONVENTIONAL	DISTANCE EDUCATION
Teachers/Counselors encouraged my participation		
Eager to help		
Teachers/Counselors guided me to the comprehension of the learning material		
Teachers/Counselors was available to instruct		
Teachers/Counselors watched my progress		
Teachers/Counselors offered feedback with a view to improvement		
Teachers/Counselors reinforced the group dynamics		
Teachers/Counselors realized the difficulties and helped me out		

17. Quality of the teacher/counselor : (Put Grade Mark)

Excellent	Very Good	Good	Average	Unsatisfactory
5	4	3	2	1

Teacher/Counselor	CONVENTIONAL	DISTANCE EDUCATION
Scientific background		
Emphasis on analytical thinking		
Teaching capability		
Instructional thoroughness of the learning material		
Ability to communicate knowledge		

18. Quality of learning experience: (Put Grade Mark)

Excellent	Very Good	Good	Average	Unsatisfactory
5	4	3	2	1

Variables	CONVENTIONAL	DISTANCE EDUCATION
Conception from SLM/text book		
Benefit from Assignment		
Support provided by the teachers/advisors		
teacher/ Counselor quality		

19. Students' behavior and attitude towards the use of technology**:(Put Grade Mark)**

Excellent	Very Good	Good	Average	Unsatisfactory
5	4	3	2	1

Behavior and Attitude towards ICT	CONVENTIONAL	DISTANCE EDUCATION
Learning through the Internet/website		
Learning through sms/radio /television/		

Learning through phone in programme		
Learning through Toll free phone service		
Supplementary learning material in video tapes		

20. Comparative view of the Following Factors: (Put Grade Mark)

Excellent	Very Good	Good	Average	Unsatisfactory
5	4	3	2	1

Factors	ODL	Conventional
Programme is effective		
Economy / Cost effective		
Useful in Understanding		
Acquisition of More Knowledge		
Organized Approaches		
Easy access to Communication		

Effective use of information and communication technology-		
Effective examination System		
a. Timely holding of examination		
b. Timely declaration of results		
c. Transparent examination system		
Effective SLM(print/audio-visual		
Effective student support services		
Timely held of Seminar / Workshop		
Adequate and effective counseling session/ class		
Good Governance		

SCHEDULE FOR TEACHERS/COUNSELORS OF ODL AND

CONVENTIONAL SYSTEM

We have taken a research Project "**LEARNER'S COST EFFECTIVENESS AND QUALITY IN DISTANCE EDUCATION – A STUDY ON SELECT UNDER GRADUATE BBA, BCA AND BCOM COURSES IN ASSAM**'' .In this regard , you are requested to feel free to express your views with respect to the following schedule your views will be used for research purpose . I hope you will co-operate to accomplish the project.

(PleaseV in appropriate box or explain as required ; use separate sheet if space is insufficient)

1.Name of study centre /college.....

2. Name of the Respondent.....

3. Designation.....

1. Address of Respondent.....

5. Name of programme in your college/study center

BBA □ BCA □ B.COM □

6.Effectiveness of Textbook/ Study Materials of ODL VS Conventional**:**

(Put grade mark)

Excellent	Very Good	Good	Average	Unsatisfactory
5	4	3	2	1

Interaction of the learning materials	CONVENTIONAL	DISTACE EDUCATION
User Friendly		
Real life situation analysis		
Interactive		
Self-Instructional		
Easy and lucid language		

7.Quality of the structure of the course**: (Put Grade Mark)**

Excellent	Very Good	Good	Average	Unsatisfactory
5	4	3	2	1

Course structure	CONVENTIONAL	DISTANCE EDUCATION
Clear learning goals		
Realistic learning goals		

Comprehensive analysis of cognitive fields		
Includes recent literature		
Adequately connected to relating fields		
Interesting subordinate subjects		
Helps skills development		
Caters for a holistic development of the field		
Content - goal relation		

8. Comparative view of the following factors: **(Put Grade Mark)**

Excellent	Very Good	Good	Average	Unsatisfactory
5	4	3	2	1

Factors	ODL	Conventional
Programme is effective		
Economy / Cost effective		
Useful in Understanding		
Acquisition of More Knowledge		
Organized Approaches		
Easy access to Communication		
Effective use of information and communication technology-		
Effective examination System		
a. Timely holding of examination		
b. Timely declaration of results		
c. Transparent examination system		
Effective SLM(print/audio-visual		
Effective student support services		
Timely held of Seminar / Workshop		

Adequate and effective counseling session/ class		
Good Governance		

1. Use of information and communication technique (ICT) in teaching learning process.(**Put Grade Mark**)

Excellent	Very Good	Good	Average	Unsatisfactory
5	4	3	2	1

ICT Devices	CONVENTIONAL	DISTANCE EDUCATION
Computer		
Videoconference		
Internet		
Radio		
Television		
Website		

PUBLICATIONS

1. "Learner cost effectiveness in Distance and Conventional education- A case study on selected undergraduate professional courses with special reference with Assam" A UGC sponsored national seminar on higher education in north eastern region: Problem, prospect and challenges organized by Internal Quality Assurance cell, Kharupetia College,, Kharupetia, Darrang(Assam) in collaboration with Assam Science Society, Mangoldai Branch, dated: 17th and 18thJune , 2015.
2. "A case study on cost effectiveness in open learning system on some selected courses BCA, BBA and BCOM with special reference to greater Assam" . paper published in International Jouranl of Engineering Technology, Management and Applied Sciences (IJETMAS), Volume 4, Issue 5, May 2016, ISSN 2349-4476, Impact Factor 2.24
3. "The role of ICT in Open and Distance learning mode of education system which has a significant difference from conventional mode of education"- A UGC sponsored national seminar on sustainable development in India: Issues and Challenges with special reference to NER-India. In academic collaboration with North Eastern Association (NEEA) , North East India commerce and Management Association (NEICMA) , Society for Extension Education , Agra (SEEA) and Association of North East India Studies (ANEIS) and organized by Lumding College on 23rd and 24th June 2017.
4. "A study on the quality of conventional/ODL mode of education system for the courses of BCA, BBA and BCOM with reference to greater Assam " Published in Excellence International Journal of education and Research(EIJER), Multilingual Journal for All subject, ISSN 2349-8838, UGC approved Journal No 46014, Impact factor 4.565, Volume -4 Issue-11, November, 2017.