

STUDY ON USAGE OF ICT IN ENHANCING THE QUALITY OF HIGHER EDUCATION

Mrs PreetyKushalJain, Research Scholar, JJTU

Dr. Vinod M. VAZE

Research Guide Computer Science (JJTU)

Abstract:

Information and communication technology has been adopted as a positive technological change in almost every industry; and education industry has not been excluded from this revolution.

Education is considered as an important key to the transformation & overall development of human life. In today's competitive world; being literate is not enough; perusing higher education is in demand. The quality of education can be enhanced when educational institutions embrace the innovative and quality ways for teaching & learning processes. ICT symbolizes 'new time' in the evolution of education. Usage of ICT in education industry includes using information & technology in the form of hardware, software & applications in collecting storing students' data, imparting knowledge through audio-visual aids, conducting examination & evaluation of students etc. To sum up, ICT can really be proved advantageous to enhance quality of higher education.

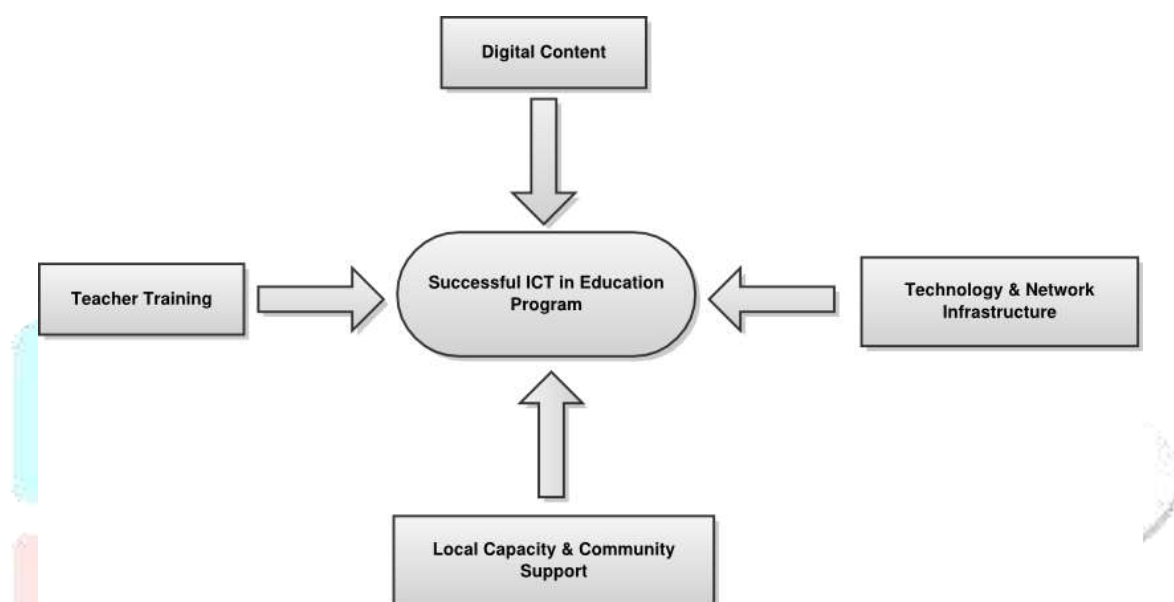
Based on primary data; this paper aims at encouraging the use of ICT to enhance the quality of education by understanding the current status of ICT practice in educational institutions and identifying key benefits & challenges of ICT with special reference to institutes in Mumbai suburbs.

- **Keywords:-** *ICT, education industry, Quality, teaching & learning, revolution*

Introduction

The influence of ICT incredibly revolutionized the educational environment. People have accepted it as a reality. However, there are different views in the educational sector regarding the importance & growing prospective of ICT. The positive side of ICT advocates on integrating ICT with educational system in meaning full way so that the learning experience generated will be as the expectation of the teacher. ICT facilitate the growth of innovative educational conceptions, establishes new models of communication braking up the barriers of traditionalism in the classroom. However the challenges of ICT in education comewith a thought of so called knowledge based society which is reluctant to get converted into information society. The information society or digital society is the society they attempt to convert itself with technology.

Technology when blended with knowledge creates opportunities for change & adoption but posing challenges too. ICT has given way to a teaching role based on the need for training in & updating ones knowledge of teaching methods based on current requirements. For this to happen the functional role of teachers within the approach towards ICT required change in their methodological practices. This change is not just technological or methodological change but the change in the mind set. So, the teachers or educationalist belong to the traditional view on teaching & learning must shift their mind set optimistically towards the impact of ICT in educational industry.



The ICT Policy in higher education aims at preparing youth to participate creatively in the establishment, sustenance and growth of a knowledge society leading to all round socio- economic development of the nation and global competitiveness. The introduction of ICT in the higher education has profound implications for the whole education process ranging from investment to the use of technologies in dealing with key issues of access, equity, management, efficiency, pedagogy and quality.

Key Benefits of ICT-based Education:

- Promotes Learning by doing approach
- Enables self-paced learning
- Provides access to wide range of up-to-date learning materials
- Enriches learning through a combination of audio, video, images, text and animation
- Enhances learning through interaction and collaboration
- Provides a platform that engages students
- Student-centered Learning
- Supporting Knowledge Construction

- Anyplace learning & Anytime learning
- Information Literacy

Review of Literature

NamitaSaxeena (2017), the benefit of ICT as a potential tool for extending educational opportunities and making major differences in the learning of students and teaching approaches. ICT is an assisting tool that brings innovation in teaching skills and encourages interest and active participation of students in learning. The significant argument of this paper is that the major advantage of ICT as source to paper present and next generation of students for a work place where use of ICT is becoming more and more ubiquitous. The paper also triggers at the limitations of ICT use in education in terms of resistance and lack of from the circle of teachers in using this technology.

AdavbielaJushina (2016), today information & communication technology plays a vital role in the learning & teaching process of education. There are many researches with source problem in ICT integration in teaching & learning in many developed countries but in developing country like Nigeria it is very few. The integration ICT in teaching & learning is considered as medium in which a variety of approaches were implemented. So, finally this paper concludes by saying that ICT can play a significant role in improving the overall quality of higher education.

KayiwaShafiket. al (2016), the paper focuses on contribution of ICT not in teaching & learning process but in the higher educational administrative in Uganda. Most of the paper on this domain concentrate on how ICT has led changes in the way educational institutions carry out activities & process related to teaching & learning. However this paper caters to the other area which is as crucial as teaching & learning in educational institutions. & that is administration of this institution. If well implemented & utilized, ICT can offer various benefits to educational administration including time saving, cost effective & ease or convenience. The main aim of this study is to identified the role ICT in higher educational administration in Uganda with the view to motivate the institution for the adoption of ICT in there administration.

Hussain D. (2014), hadincreased use of information and communication technologies (ICTs) has brought changes to teaching and learning at all levels of higher education systems (HES) leading to quality enhancements. Traditional forms of teaching and learning are increasingly being converted to online and virtual environments. There are endless possibilities with the integration of ICT in the education system. The use of ICT in education not only improves classroom teaching learning process, but also provides the facility of e-learning. ICT has enhanced distance learning. The teaching community is able to reach remote areas and learners are able to access qualitative learning environment from anywhere and at any time. It is

important that teachers or trainers should be made to adopt technology in their teaching styles to provide pedagogical and educational gains to the learners. Successful implementation of ICT to lead change is more about influencing and empowering teachers and supporting them in their engagement with students in learning rather than acquiring computer skills and obtaining software and equipment. ICT enabled education will ultimately lead to the democratization of education.

NavdeepKaur (2015), the industry ready students need the industry ready trainers. For this there has to be an appropriate integration of ICT and education. So the teachers also require upgrading themselves with the latest trends in teaching methodology. This entire paper emphasis on using such latest trend for the teachers through teachers with procures a great opportunity to be empowered. The general term of ICT followed by its utility in education sector. The ICT should be integrated in universities at national and international level for a better nation. Due to some common barriers the teachers find in difficult to promote ICT and so they are not confident in effective training and sometimes technical support is not provided by the organization. However, teachers must take up ICT to look beyond the text book and traditional aids which will further enhance both learning and teaching experience. After all, it would be a great revolution if teachers are empowered with enhanced qualities so as to shape brighter future of the students who are the true representatives of progressive nation.

KhuramShahzadet. al (2015), use of visual aid as (Project,Picture,Animation,Video) as a motivational tools in improving students & teacher attention in teaching learning process. This also shows that how improve education in & how its plays a vital role & with our education nobody can lead a good life. Visual are the tools which help the teachers to Co-ordinate and establish the concept of the topic for the learner to make it more interactive motivating and encouraging. Visual aids help in creating a interesting environment in class, create conceptual thinking, provide direct experience, increase the vocabulary of the students. The use of visual aids will improve the quality of education, and recommendation that the college authority and ministry of education should take positive action to provide facility of visual aids to improve the overall quality of education.

Muhammad Saqib Khan et. al(2015), this report talks about ICT which stand for information & communication technologies. ICT focuses on communication technologies e.g. Internet, wireless network, cell phone& other communications medium. In the past few years communication technologies have provides masses to easily connect share & educate themselves, through instant messaging, voice over IP & video confirming, the best example of social networking is Facebook, which has helped users from all over the world to reunite contact & communicate on a day to day basis. New & modern ICT have created a world

to become a global village, masses can share contact view as well as communicate with each other and get entertained as if they are neighbours and they live next door.

Gloria Oyovwe – Tinuoye (2013), the hindrance associated with the use of ICT in quality education are insufficient ICT facilities, not great accessories, poor power supply, teachers who lack ICT knowledge, no time for teachers to contribute, poor staff, and lack of technical assistance.

RominaIfeomaAsiyai (2011), the importance of education all over the world its implementation on all sectors of the society and its compulsion that government has created for every individuals, be it any class and zone. ICT is a communication technology used by organization personal, student, teaches every individual who needs to draw information, also organize, create, manipulate, solve, find, share, collaborate, modify, analyze, evaluate, & disseminate information through the medium of internet which is a must and most significant discovery of mankind in the 21st century.

ITC has helped the education industry in simplifying and enhancing the education world to the pupils, ITC has also made the world turn into a global village, ITC has also made distance education possible world wide. Information is broadcasted to the masses as well as educational institutes have taken up common cabled computers & media network to part knowledge, digitalization has taken over the world making it effective & easy for every individual to know, share gain and impact current knowledge & scenario to each & every part of the world making it sound truly a world which can be called a global village indeed.

YasmeenGulbahar (2008), the level of usage of pre-service teachers and instructor s utilization of information and communication technologies. To examine factors that contribute to pre-service teachers' utilization of technology and suggests recommendations regarding to the effective utilization of technology. The developments in technology have made tremendous changes in the way we live, as well as the demands of the society. The impact of new technologies on the workplace and everyday life, today's teacher education institutions try to restructure their education programs and classroom facilities, in order to minimize the teaching and learning technology gap between present and the future. The instructors believe that technology usage is important for teaching, however lack of confidence and understanding during integration process

Objectives of the Study:

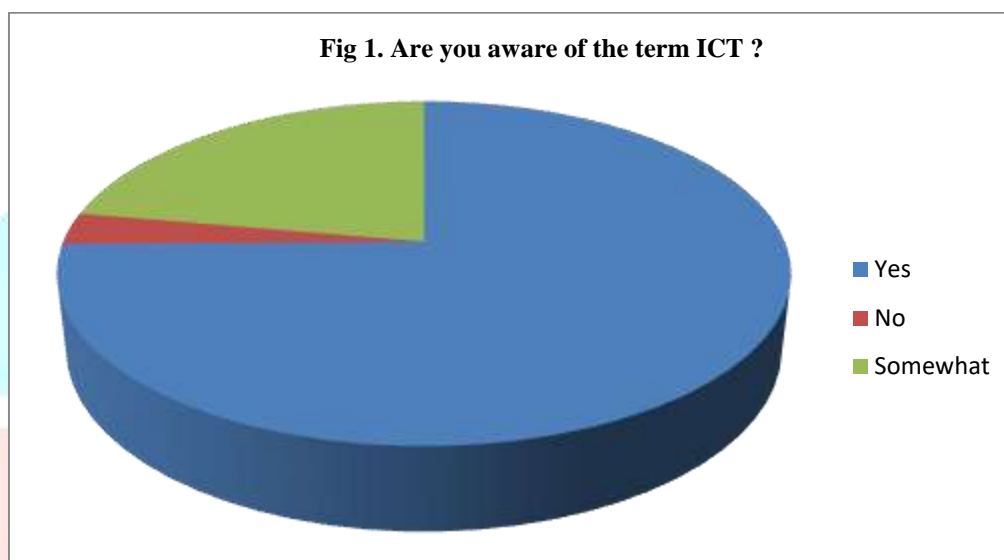
- To understand the current status of ICT in educational institutions
- To check the awareness on ICT among teachers
- To identify the perceived barriers for the adapting ICT in the institutions
- To motivate the use of ICT as a tool to enhance quality of education

Research Methodology:

- Sample size – 100
- Sampling technique – Non-probability convenience sampling
- Sample frame – Teachers from various educational institutions across Mumbai suburbs
- Data collection method – Survey through structured questionnaire

Data Interpretation:

Following is the graphical representation used to analyze the data followed by interpretations based on the questions asked to the respondents through a structured questionnaire:-



Interpretation: 74% respondents are aware of Information & Communication technology over 22% respondents somewhat know about it and 4% are unaware of it.

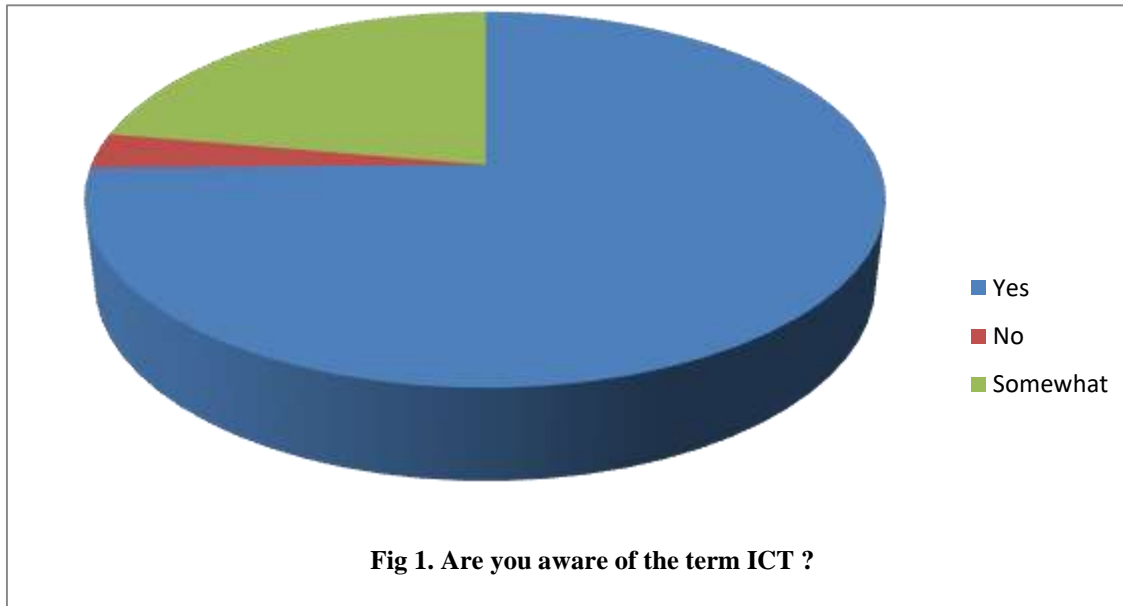


Fig 1. Are you aware of the term ICT ?

Interpretation: 90% of the respondents use ICT for Internet.

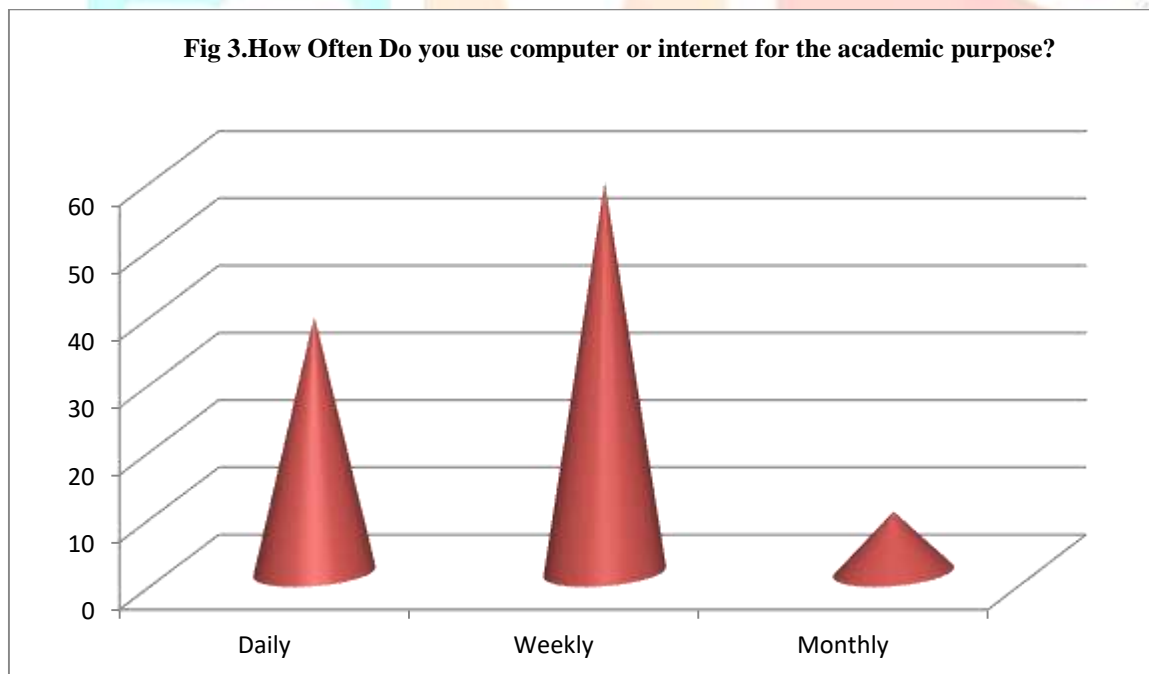
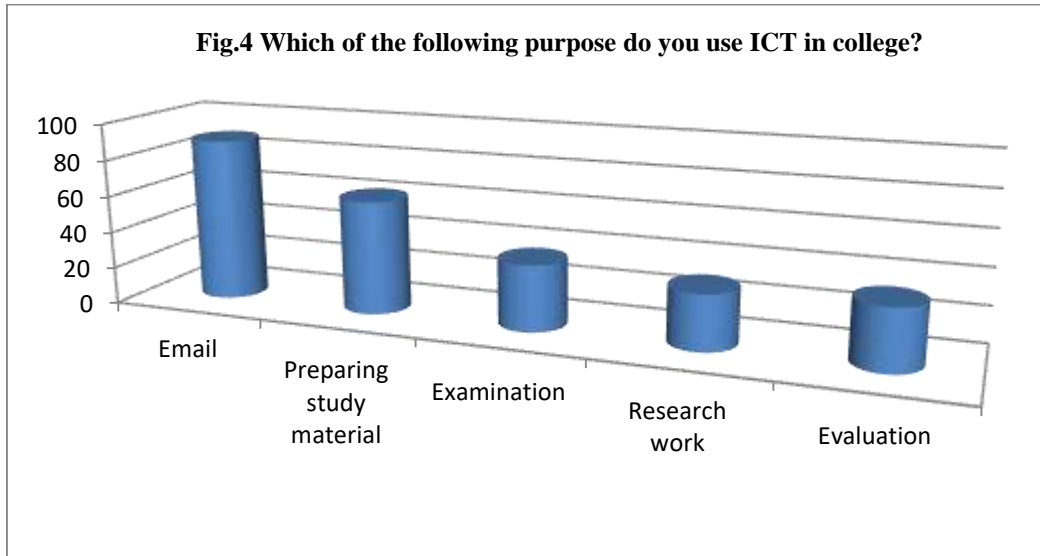
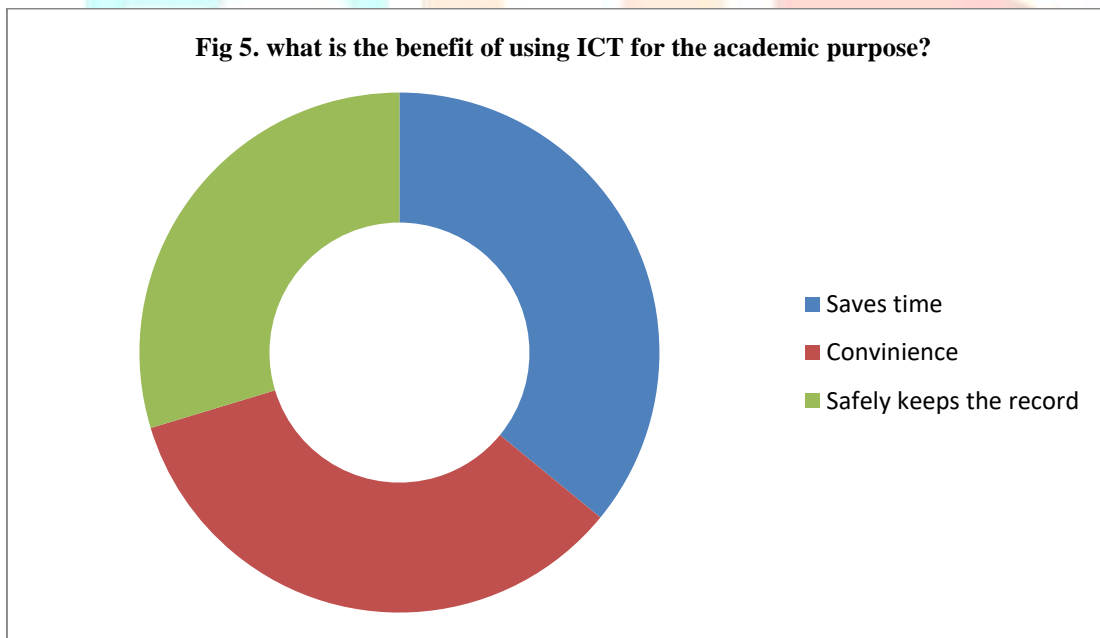


Fig 3. How Often Do you use computer or internet for the academic purpose?

Interpretation: 58% of the respondents use ICT weekly over 38% daily and 4% monthly.

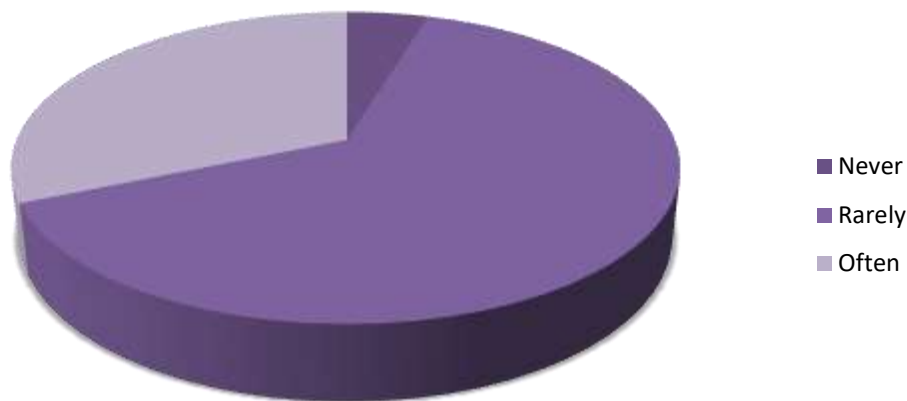


Interpretation: Mailing is the priority purpose followed by preparing study material, examination & evaluation.



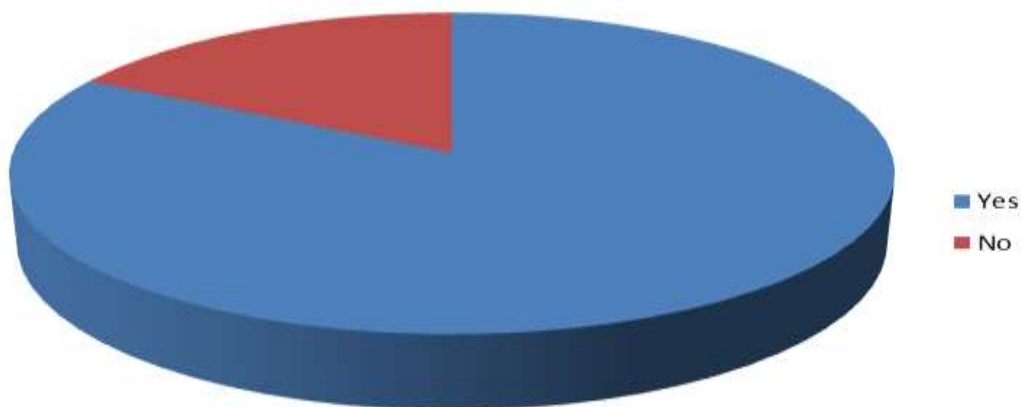
Interpretation: 35% respondents agreed that ICT saves times; 35% of respondents agree for its convenience & 30% believes that ICT safely keeps the record.

Fig 6. How often do you use this technology for teaching in class?



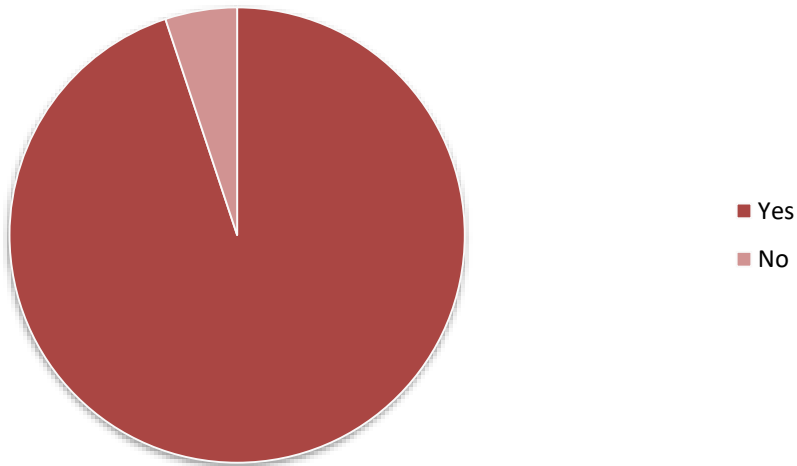
Interpretation: Only 18% respondents use ICT often in teaching whereas 27% respondents prefer use of ICT rarely and 55% never use ICT for teaching in Class.

Do you encourage your students to use computer technology for their academic activities ?



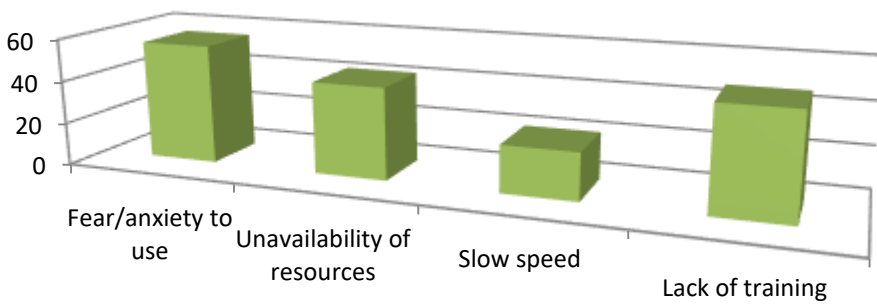
Interpretation: 83% teachers encourage students for using ICT in their academic purpose.

Fig 8. Do you believe ICT is improving the quality of education?



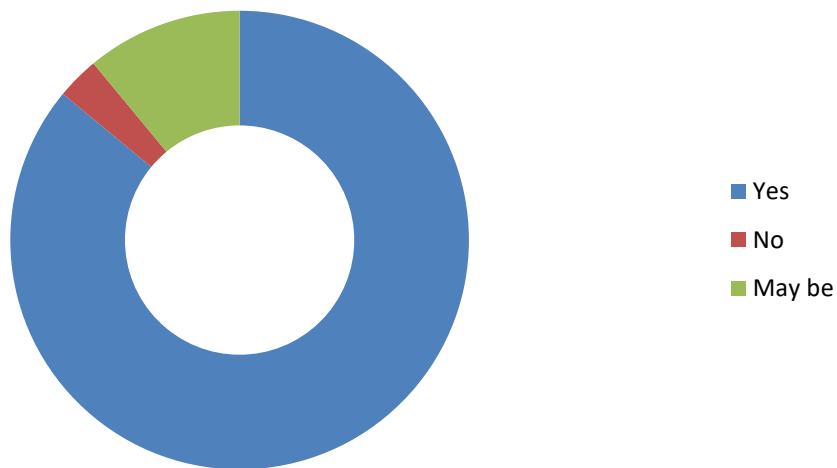
Interpretation: 93% of respondents believe that ICT is improving quality of education.

Fig.9 Do you face any of the following problems in use of technology in teaching?



Interpretation: Fear or anxiety towards ICT is the foremost problem in the usage of ICT closely followed by lack of training & lack of resources.

Fig .10 Do you feel that colleges should encourage use of technology for teaching and learning?



Interpretation: 86% respondents feel that colleges should encourage the use of ICT in teaching & learning.

Findings:

- There is considerably a huge awareness of ICT among the academicians.
- There is adaption of using ICT in fulfilling academic duties; however not preferred by everyone.
- Mailing & preparing study material are the foremost jobs performed by academicians.
- Time-saving & convenient are the two virtues which make ICT the preferred tool.
- Majority of academicians believe that usage of ICT should be encouraged in the institutions as it enhances quality of education.
- Academicians feel anxious using ICT; they are not being provided training on ICT
- There is inadequacy of proper ICT resources.
-

Conclusion:

ICT, similar to other industries, has proved its efficacy in the field of education too. Though academicians have agreed to the benefits offered by ICT; it is not entirely adopted or encouraged in some educational institutions. There is an massive need to train academicians about the expedient usage of ICT so that they can explore it at an extent to enhance the quality of higher education.

Recommendation:

- Institutions must provide proper infrastructure & resources for ICT; to motivate its usage among the teaching staff.
- They should be given appropriate training on the usage of ICT so that there will be low or no anxiety towards the technology.
- Since teachers are the idols or opinion leaders for the students; teachers must take initiatives & measures to promote the use of ICT so as to bring on the most technologically upgraded future generation.

Limitations of the study:

- Limited sample size & sample frame
- Incomplete responses as some respondents were reluctant to admit their resistance for newer technology.

Scope of Research:

This paper attempts to understand the current preference for the uses of ICT tools in institutions and its impact on enhancing quality of education. However the spectrum of ICT is very huge in terms of the tools it offers and its utility. The future scope of the study will be to analyze which ICT tool impacts more efficiently on education and whether it will be suitable to the education system in the areas other than the metropolitan cities.

References

Hernandez R. M., (2017), Impact of ICT on Education Challenges and perspectives "Article under licence CC BY-NC-ND 4.0 International" ISSN 2307-7999.

Saxena N., (2017), The role and Impact of ICT in Improving the Quality of education an Overview", "International Journal of Emerging Science and Research Technology".

Kaur N., (2015), "Using ICT in Empowering Teachers doe Quality Education" "International Journal of Scientific Research Emerging & Technology"

Pegu U (2014),"Information and communication Technology in Higher Education in India challenges and Opportunities" "International Journal of Information and Computational Technology" Vol.4, No 5.

Mbodiaetal (2013) Integration of ICT in Education: Key Challenges” , International Journal of Emerging Technology and Advanced Engineering Vol 3 , No 11.

Krishnaveni R and MeenakumariJ (2010),"Usages of ICT for Information Administration in Higher Education Institution", International Journal of Environment Science and Development, Vol. 1 No. 3.

Sarkar S., (2012),"The Role of Information and Communication Technology (ICT) in Higher Education for the 21st Century",The Science Probe, Vol. 1 No 1.

Vitkar S., (2012),"Cloud Based Model for E-Learning in Higher Education" International Journal of Advanced Engineering Technology

Basak S., (2010), "Measuring the joint impact of IT Adoption and Training on Academic workload and on research productivity" International Journal of Advanced Computer Technology (IJACT),Vol- 2 issue 2.

Websites:

<http://edtechreview.in/trends-insights/insights/959-advantages-of-using-ict-in-learning-teaching-processes> ,
accessed on 20th Feb. 2018

<http://www.elmoglobal.com/en/html/ict/01.aspx> , accessed on 20th Feb. 2018

<http://www.olenepal.org/ict-in-education/> , accessed on 24th Feb. 2018

Annexure: Questionnaire

Name: _____

Designation: _____

Name of the Institution: _____

.....

1. Are you aware of the term ICT (Information & Communication Technology)?

Yes No Somewhat

2. Do you use computer or internet for the academic purpose?

Yes No

3. If Yes, How Often?

Daily

- Weekly
- Monthly

4. Which of the following purpose do you use ICT in college?

- Email
- Preparing study material
- Examination
- Research work
- Evaluation

5. According to you what is the benefit of using ICT for the academic purpose?

- Saves time
- Prepare lecture notes easily
- Enhance my knowledge
- Helps in enhancing quality of teaching

6. How often do you use this technology for teaching in class?

- Never Rarely Often

7. Do you encourage your students to use computer technology for their academic activities?

- Yes No

If yes, how _____

8. Do you believe ICT is improving the quality of education?

- Yes No

9. Do you face any of the following problems in use of technology in teaching?

- Lack of time
- Unavailability of resources
- Slow speed
- Lack of training

10. Do you feel that colleges should encourage use of technology for teaching and learning?

- Yes
- No
- May be

XXX