

communication works but for those who work at it. In the existing globalization scenario, most of the Information Technology, I.T Enabled Services, management institutes, public and private sector, multi-national Companies, Union Public Service Commission, and State Public Service Commission are search for a right and suitable fresher for executive posts. Whatever be the recruiting criteria that I.T, ITES, industry giants had in their agenda, once this was clear a first class degree would not serve the purpose, the candidate have to satisfy the skill sets that the companies were looking for. And unanimously, the skills set that they were looking for communication skills.

Use of ICT and Academic Performance Of Students in Higher Education With Special Reference to Colleges in Navi Mumbai

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Abstract

From the point of view of employability and skills development Information and communication technology is being considered significant input in learning. Institutions of higher learning in India are strategically improving the ICT tools and implementation for facilitating learning. Use of ICT like computers and Internet is a powerful tool which makes the educational effective and lot of opportunities for the students. Present study focuses on the use of Information and communication technology by the undergraduate and post graduate students of Arts, Science and Commerce in Mumbai University affiliated colleges located in Navi Mumbai and their academic performance and employability. The study is based on both primary and secondary data. Based on the findings, several recommendations have been made to provide some suggestions into the use of ICT in educational field.

Keywords: Use of ICT, Students performance

Introduction

Computers and internet facilities are available in educational area, which can be used by both teachers and learners. ICT acts a major teaching and learning device across all educational institution. With its supremacy of interactivity, multimedia and communication, the computer proves an excellent tool for education and the students will be actively participating in the activities. There is no set meaning for student performance. The standard approach focuses on accomplishment and curriculum of how students understand the courses and obtain their degrees or their marks. ICT has become a primary and accepted part of everyday life for many people. It is growing in importance and it is expected that this trend will continue, to the amount that ICT literacy will become a functional requirement for people's work, social, and personal lives. The use of ICT in suitable contexts in education can add value in teaching and learning, by enhancing the success of learning, or by adding an element to learning, which was not earlier available. ICT is also a significant motivational factor in students' learning, and supports students' engagement with two-way learning. Information and Communication Technology (ICT) is being measured as the technology of having optimistic consequences in the meadow of teaching and learning, which leads to effectiveness and efficiency in the education field. It is being brought out through researches that ICT provide scope for opening new sources of information and enhances the individual for constant learning.

Literature Review

(**Castro Sanchez and Aleman 2011**) have studied that multiple resources are abundant on the Internet, and knowledge can be acquired through video clips, audio sounds, and visual presentation and so on. Current research has indicated that ICT assists in transforming a teaching environment into a learner-centered one. **Fuchs and Woessman (2004)** used international data from the Programme for International Student Assessment (PISA). They

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showed that while the bivariate correlation between the availability of ICT and students' performance is strongly and significantly positive, the correlation becomes small and insignificant when other student environment characteristics are taken into consideration.

Maharana, Biswal and Sahu (2009) explored the use of information and communication technology used by medical students. They found 77 per cent of the respondents were of the opinion that ICT should be included in their syllabus. Nearly all respondents expressed their desire to have a computer lab in their college. One hundred respondents out of 128 opined that medical education is not effective without ICT based resources and services.

Oliver (2002) investigated the role of ICT in higher education in 21st century. He stated that ICT offers a student centered learning, it support in knowledge construction, distance education, learning at anytime. It expands the pool of teacher and students as well. It was summarized that we should see marked improvements in many areas of educational endeavor. Learning should become more relevant to stakeholders' needs; learning outcomes should become more deliberate and targeted. ICTs within education have a strong impact on, what is learned and how it is learned.

Ong, Fooand Lee (2010) in their study revealed that the initiative of Malaysia SmartSchools promotes the use of ICT has created significant positive attitude towards Science among students. **(Visions 2020: Chen& Arnold)**ICT can help to overcome two enemies of learning: “isolation and abstraction”. In a decade or two, three complementary interfaces will shape how people learn. The familiar “world to the desk top” interface will provide access to distant experts and archives, enabling collaboration, mentoring relationships, and virtual communities-of-practice. There will also be interfaces for “ubiquitous computing,” in which portable wireless devices infuse virtual resources as we move through the real world. The early stages of “augmented reality” interfaces are characterized by research on the role of “smart objects” and “intelligent contexts” in learning and doing. Additionally, there will be “Alice-in-Wonderland” multi-user virtual environments interfaces, in which participants’ avatars interact with computer-based agents and digital artefacts in virtual contexts. The initial stages of studies on shared virtual environments are characterized by advances in Internet games and work in virtual reality (Visions 2020: Chris Dede).

Zakaria, Watson & Edwards (2010) conducted their research on the use of Web 2.0 technology by Malaysian students. The general opinion gathered about the integration of Web 2.0 tools into learning was positive. Result showed that students preferred using e-mail to disseminate and share digital contents. Similarly it was also found that for finding information related to education, students prefer to use search engines instead of asking friends or teachers.

Objective

1. To analyze the use of Information and Communication Technology by students pursuing university education in arts, science and commerce stream.
2. To study the effect of use of ICT by students pursuing university education in arts, science and commerce stream on their academic performance and perceived employability.

Hypothesis

Ho- There is no significant difference on the academic performance of students pursuing university education in arts, science and commerce stream by the use of ICT.

H1:- There is difference on the academic performance of students pursuing university education in arts, science and commerce stream by the use of ICT.

Research Methodology

- Primary data is collected through the questionnaire.
- Secondary data is collected through journals, online publications.
- Sample Size is in the colleges of Navi Mumbai. Total colleges taken are four.
- For data analysis excel is used and Percentage analysis, averages, ranking method, standard deviation is used for analysis
- A questionnaire was designed after conducting a comprehensive review of the related literature. A survey of a sample of 100 undergraduate and post graduate students of faculty of Arts, science and commerce colleges in Navi Mumbai conducted. Of these 5 questionnaires were found incomplete thus data analysis is based on responses of 95 respondents. Results were represented with the help of different figures.

Result and discussion

1. Respondents Profile

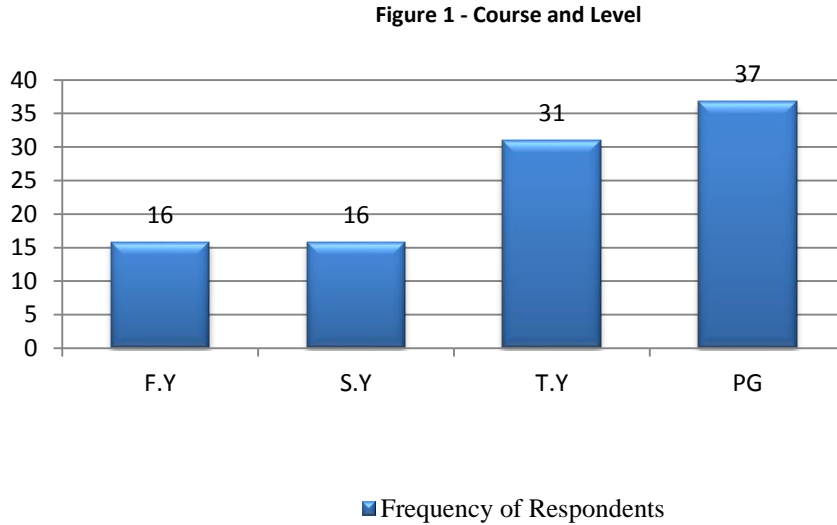


Figure 1 reveals that 63 per cent of the respondents are from undergraduate courses and 37 per cent from post graduate courses. Amongst the undergraduate students studying in different years in which First Year students are 16 per cent, second year students are 16 per cent and third year students are 31 per cent. Out of the total number of respondents 37 per cent are from Arts, 33 per cent from science and 30 per cent from commerce stream. Out of total respondents 60 per cent are male and 40 per cent are females

2. Formal training taken by the students for the use of computers and its use in learning

Figure 2 - Formal Training taken by the students

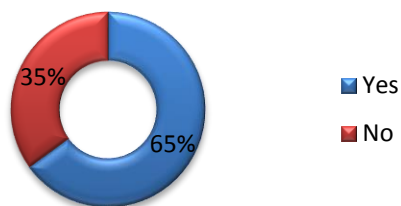


Figure 3 - Use of ICT for Learning

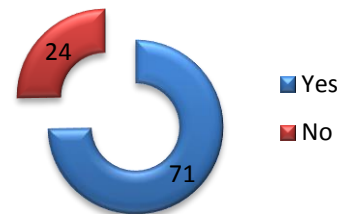


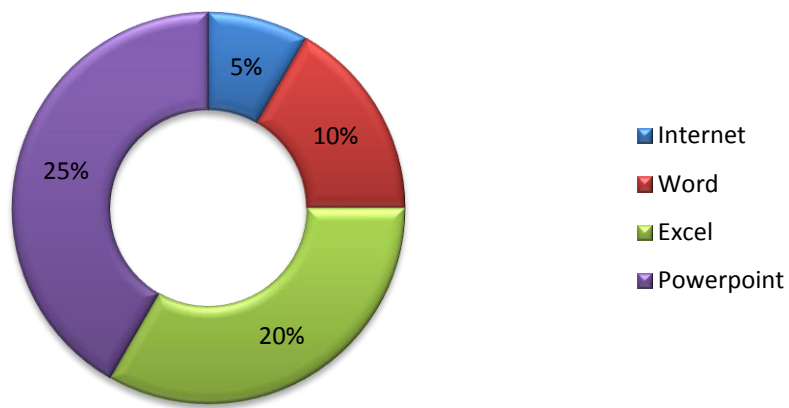
Figure 3 show that out of the total respondents 35 per cent of the have not received formal training of how to use the computers and 65 per cent students got the training of using the

computers. This indicates increasing penetration of ICT in the formal system of education and also awareness amongst the students regarding its use. Further it can be observed that 71 per cent of the respondents are using ICT for learning.

3. Types of use through ICT

As shown in figure 4, 20 per cent respondents use Excel as a part of their syllabus and practical's, 25 per cent respondents says that they use PowerPoint while making the projects and presentations, 10 per cent respondents said that they use word for any documentation purpose and 5 per cent respondents used Internet for browsing the article or any topic related to their syllabus.

Figure 4 - Various uses of ICT



4. Students Opinion towards ICT Use in learning

Figure 5 presents the mean values of the responses. Highest mean value of is of use of ICT by the teachers for teaching followed by use of ICT improves the students grade. Thus the students feel that there is an impact of use of ICT in their performance. It can be observed that student's preference for ICT does not replace it with the library resources.

Figure 5 - Use of ICT in Education (Mean Value of Responses)

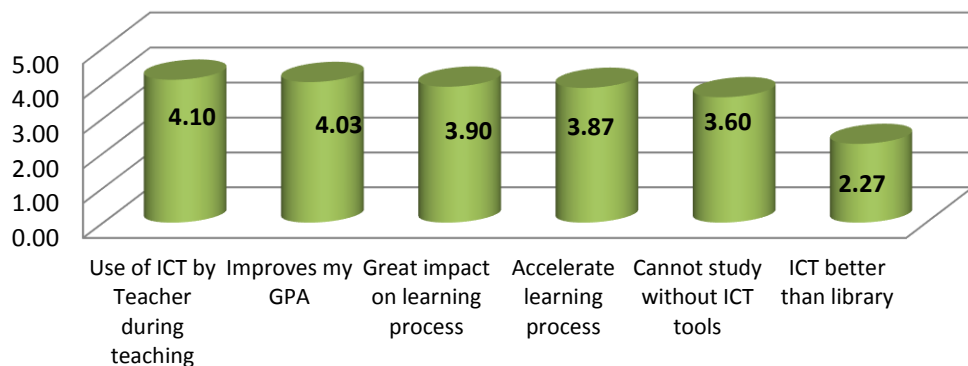


Figure 6 - Mean Value of Responses

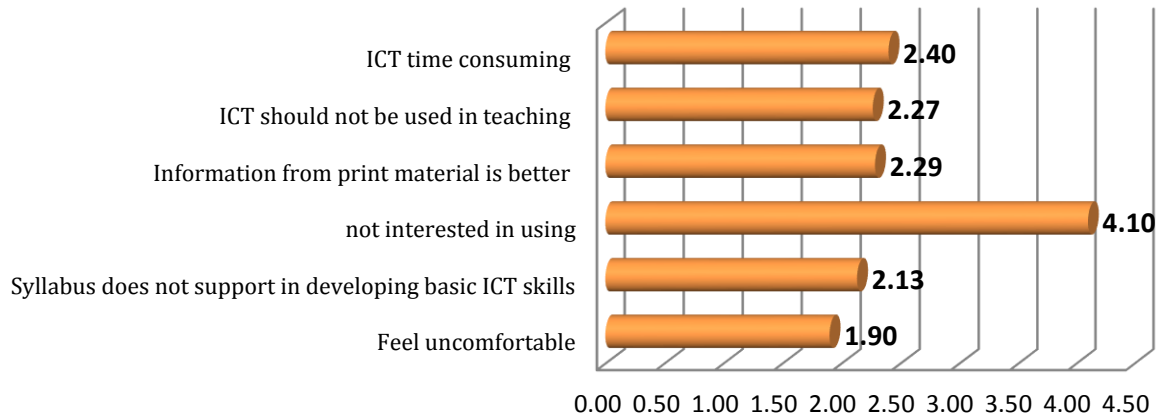


Figure 6 shows that mean value of students not interested using ICT is also equal to the ones who strongly feel that ICT has positive impact in their learning. Lower mean value is dependent on large number of respondents response as strongly disagree or disagree or the respondent is neutral. Students do not feel that ICT is time consuming or ICT should not be taught in the class. Further they also disagree that syllabus does not support in developing basic ICT skills.

Figure 7 - Time Spent for Online Information searching

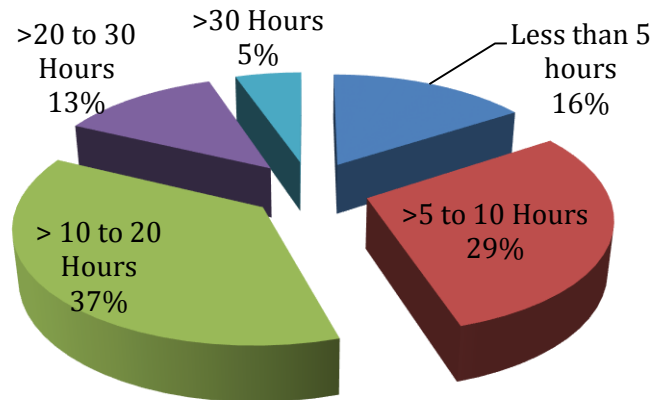
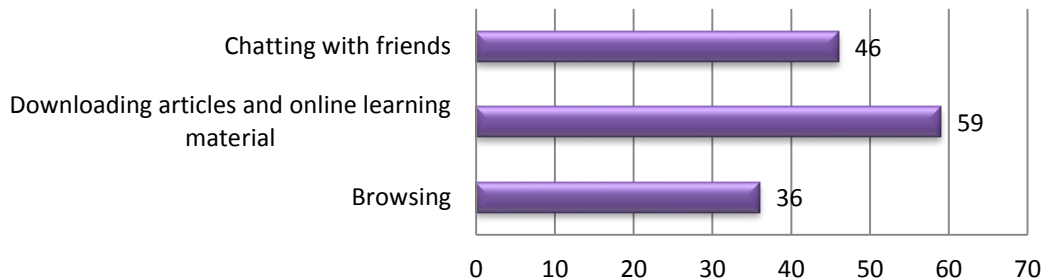


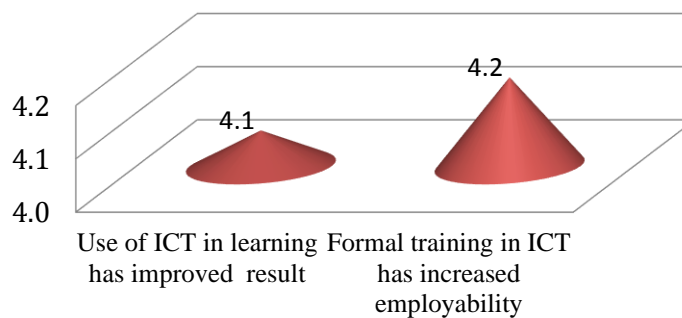
Figure 8 - Use of online Information Searching



Examination of figure 7 and 8 indicates that more than 60 per cent of the respondents spend 5 to 20 hours per week for online information searching and they 59 per cent of the respondents use use ICT for downloading articles and use electronic material for their study. Thus it can be concluded that students by and large and tech savvy and do not shy away from using ICT for learning.

5. Benefit of ICT in academic performance

Figure 9 - Mean Value of impact of use of ICT in education



ICT has been useful in increasing their employability and has also increased their academic performance can be observed from the responses in figure number 9. The mean value of increased employability clearly reveals that the students strongly feel that knowledge of ICT and learning through ICT affect their chances of getting employment in future. Not only has that improved performance also scored similar mean value.

Findings

The study found that majority of the respondents irrespective of gender was using ICT. Use of ICT is not limited to the level of course and year of study. All the students are equally well versed. The students who have got the formal training are more comfortable in using ICT as compared to the ones who have not received the training in ICT. 25 per cent respondents said that they use computers especially for the practical purpose. It was found that their students want their teachers to use ICT during lectures. Majority of the respondent's knowledge about computer applications was found quite sufficient for learning purposes. The majority strongly agreed that ICT have great impact on their learning as it helps in improving their GPA. A significant number of the respondents mentioned that they use internet and download study material. It shown that large number of respondents use 5 to 20 hours weekly in exploring online information searching activities. Majority of the students have been facing the problems of slow speed of PCs due to viruses, inadequate number of PCs in Labs, lack of time in utilizing e-resources, slow internet connectivity and electricity failure.

Conclusions and Recommendations

- The use of ICT can bring changes by practicing and implementing its use in teaching and learning.

- Many respondents were not using the ICT because they were not trained for it. Thus at all the levels and at all the courses for soft skills development it is necessary to introduce ICT and increase the employability and improved academic performance.

References

- *SánchezCastro, J. J. and Alemán, E. C., 2011. Teachers' opinion survey on the use of ICT tools to support attendance-based teaching. Journal Computers and Education, vol. 56, pp.911-915*
- *Fuchs, twoessmann, I. (2004). "Computers and Student Learning: Bivariate and Multivariate Evidence on the Availability and Use of Computers at Home and at School", CESifo Working Paper. No. 1321. November. Munich.*

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