Utility of Information Communication Technology Among Students

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ABSTRACT

The study on the Utility of ICT Among Students Learning was carried out. The study focused on availability, accessibility, and user-ability of ICT resources among students learning. The Exploratory research design was used for the study. A sample of 103 respondents was targeted from different departments. The data was collected with the help of a structured questionnaire, and analyzed by frequency, percentage, mean and standard deviation. The ICT infrastructure is well developed and provides students with free internet connection on the campus. ICT access of students was good. Where less than 30% of students sometimes access ICT. Students in using different ICT resources results that their skills as good in all the aspects like word processing, MS power point, Excel, internet web publishing, presentation, videoconferencing, and internet and emailing.

Keywords- ICT, Students, Utility.

I. INTRODUCTION

ICT stands for Information Communication Technologies' ICT refers to technologies that provide access to information through telecommunication. It is similar to information Technology (IT) but focuses primarily on communication technologies. This includes the internet, wireless network, cell phones, computers, television, video conferencing equipment, library and other communication mediums. Information and Communication Technology (ICT) is an extension term for information technology (IT)that stresses the role of unified communication and the integration of telecommunication (telephone lines and wireless signals) and computer as well as necessary enterprise software, middleware, storage and audiovisual that enable user to access, store, transmit and manipulate information. At a university, it is often taken for granted that all students are familiar with basic ICT skills. Indeed, most students will have grown up in families where a computer was present, and in primary and secondary education PCs are a normal part of school life. (Heerwegh, 2014).

ICT term also used to refer to converges of audio -video and telephone networks with computer network through a single cabling or link system. In the past few decades, information and communication technologies have provided society with a vast array of new communication capabilities. e.g. people can communicate in real

time with others in different countries using technologies such as instant messaging, voice over IP(VoIP) and video conferencing. ICT refers to the form of technology that are used to transmit, process, store, create, display, share or exchange information by electronic means. This broad definition of ICT includes such technologies as radio, television, videos, DVD, telephone, (both fixed lines and mobile phone) satellite systems and computer and network hardware and software, as well as the equipment and services associated with these technologies, such as video conferencing, e-mail, and blogs. (UNESCO, 2007) Besides ICT alerts thought pattern, enrich existing educational models and provide new training models. Educational effectiveness is of ICT is depends on how they are used for what purpose and like any other educational tools. (Talebian, 2014) ICT has powered our teaching with technology which is flooded by information and driven to make knowledgeable society. In ICT classroom the learning is actively involved in interaction and problem solving. Use of ICT helps the student to focus on higher level concepts rather than less. (Saxena, 2015) The internet has become an integral part of every individual's life. It is no surprise that the use of the internet, even in school, has increased at a rapid rate. ICT has given wing to scholars, educators, and allied staff in a multitude of way. Software in schools has empowered them to uplift their communities through the use of technology related activities in the world of education.   telecommunications. ICT has often perceived as catalyst for change, change in teaching style, change in learning approaches and in access to information (Watson, 2001).

In recent years the ICT tools have become the backbone of social media through which various ways have been created to promote learning. ICT can enhance the quality of education in several ways by increasing learner motivation and engagement by facilitating the acquisition of basic skills and by enhancing teacher making learning effective of learners in various ways. (Devi.M, 2015)

OBJECTIVES OF THE STUDY

- To examine the availability of ICT resources on students learning
- To assess the accessibility of the ICT resources on students learning
- To investigate the user-ability of ICT resources on students learning
- To analyze the learning style of student's information communication technology usage by students for learning

REVIEW OF LITERATURE

(Heerwegh, 2014) conducted a study on ICT learning experience and research orientation as predictors of ICT skills and the ICT use of university student's ICT and its use by students has changed greatly. In order to obtain a more detailed picture of ICT skills, researcher first construct a new instrument to measure the self-perception of ICT skills (49 items) and of ICT use (53 items) by students. Former studies have shown that at least ICT use might be positively related with achievement in science subjects and improved critical thinking among young students, but have not investigated this link at the level of university education. Accepting that the study of science familiarizes students with the procedures of scientific research, we can hypothesize that students interested in scientific research will also be interested in the knowledge and application of ICT. In this current research, based on theoretical considerations presented in the next section researcher expect to find an association between the level of command of ICT skills and ICT use, and the degree to which university students are research oriented. In the methodology on the basis of a questionnaire filled out by 1,232 bachelor's students, researcher investigate the association between ICT use and skills, and research orientation,

considering the ICT learning experiences of the students and some important contextual variables such as gender, the education level of the parents, and the domain of study.

(Leu, 2014) Conducted a study on Towards the theory of New Literacies Emerging from the internet and other information and communication technologies. He explained that how literacy changes regularly throughout time which influenced by important social forces and technologies. They have explored the social context including global economic competition the rise of the internet and other ICT and they have also concluded that educational polices from nations around the world that emphasize higher achievement in literacy and the effective use of information technologies.

(Khan, Bhatti, & and Ahmad Khan, 2011) Conducted a study on Use of ICT by students: A survey of faculty of Education at IUB. The main objectives of the study were to analyze the pattern of ICT usage by students, its availability, use of ICT by their teachers during lectures and student's opinion on ICT. A structured questionnaire was designed after conducting review of literature and data were analyzed in SPSS software. The study found a large number of respondents reported that they utilize ICT at their departmental computer lab and teacher use sometimes ICT during teaching.

(Meenakshi, 2013) The article is a good attempt to present a glimpse of meaning of ICT, its importance and need for education and is an attempt to present the important issues that must be addressed b with pre-service teachers and in-service teachers. According to the researcher ICT technology includes computers, the internet, broadcasting, technology. The Indira Gandhi National Open University in India combines the use of print, recorded audio and video broadcast radio, television and conferencing technology. The use of ICT can improve the quality of education by increasing learner motivation and engagement, by facilitating the acquisition of basic skills and by enhancing teacher training. (Zafar, 2019) Tried to examine the role, challenges and impact of ICT, how it facilitates students, teachers and end users. Researcher said that ICT is contributing immensely for the development of education. The study is based on secondary data, different aspects concepts of ICT learning is explained and conclude that due to ICT human quest for knowledge has greatly improved and worked has become small village with better living of standard. Teaching with ICT enhance active learning of students. (Aming, 2013) from the literature review researcher concluded that ICT enhancing teaching and learning process. ICT enhancing quality and accessibility of education. ICT enhancing learning motivation, ICT enhancing learning environment, ICT enhancing scholastic performance, the adoption and use of ICT education have positive impact on teaching learning and research.

METHODOLOGY

RESEARCH DESIGN

The Exploratory research design was used for the study.

LOCALE OF STUDY

The study was carried out among students of Sant Gadge Baba Amravati University, Amravati

SAMPLE SELECTION

A sample of 103 respondents was targeted from different educational post graduate departments of SGBAU University. The students were considered the true representative population since they were the target of this investigation.

DATA COLLECTION METHOD

The data was collected with the help of structured questionnaire.

ANALYSIS OF DATA

Data collected was analyzed with the help descriptive statistics mainly presented by use of quantitative methods.

RESULT AND DISCUSSION

In the study, a total number of 103 Students were sampled giving a total of 130 questionnaires that were distributed. A total of 103 (73.23%) fully completed questionnaires were returned of by students respectively. This gave a response rate of = 103÷130 = 0.7923×100 = (79.23%).

DEMOGRAPHIC CHARACTERISTICS

The demographic characteristic illustrates the distribution of respondents according to Age, Education and Gender.

Table no.1 Distribution of Respondents according to their Age.

Sr. No	Attribute	Category	Count	Percentage (%)
1		18-22	64	62.13
2	Age	23-26	37	35.92
3		27-31	2	1.94
Total			103	100

From it can also be noted that majority of the respondents 64 (62.13%) were aged between 18-22 years and 37 (35.92%) were age between 23-26, About 1.94 % were aged between 27-31 years.

Table no.2 Distribution of Respondents according to Gender

	Attributes	Category	Count	Percentage (%)
		Boys	32	31.06
	Gender	Girls	71	68.93
Total			103	100

Distribution of Respondents according to Gender

Distribution of Respondents according to Gender
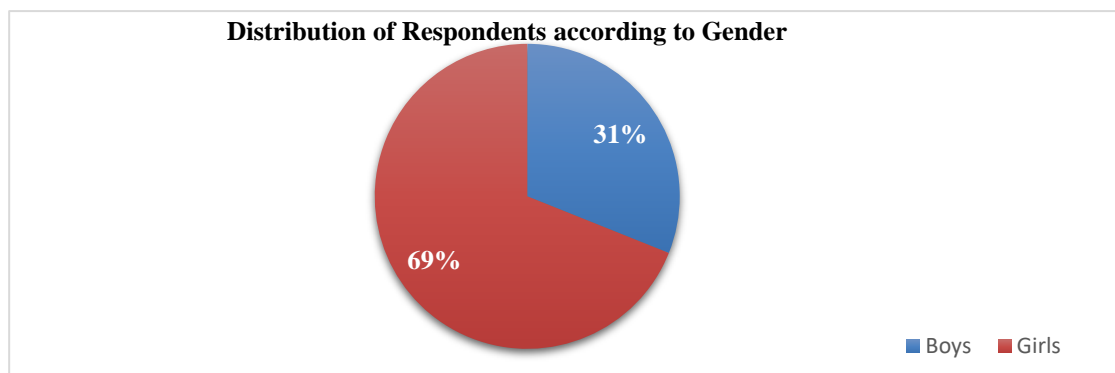
The findings show that most of the respondents 71 (68.93%) were Girls while only 32 (31.06%) of them were Boys.

Respondents' opinion on the availability of ICT resources

Several items in the questionnaire were presented to the ICT respondents to rate their availability and the findings are shown in table.

Table no. 2 Distribution of respondents according to their self-efficacy of students on ICT resources tools / by opinion on the Availability of (Computer/PC in classroom) ICT resources

ICT Resource	Status	Frequency	Percentage
i. Computers/PC in classroom	Not available	20	19.41%
	Fairly available	17	16.50%
	Available	66	64.07 %
Total		103	100%
ii. Internet	Not available	3	2.91
	Fairly available	16	15.53
	Available	84	81.55
Total		103	100
iii. Television set	Not available	64	62.13%
	Fairly available	15	14.56%
	Available	24	23.30%
Total		103	100%
ICT Resources	Status	Frequency	Percentage (%)
iv. Projector	Not available	5	4.85
	Fairly available	23	22.33
	Available	75	72.81
Total		103	100
v. Video conferencing equipments	Not available	46	44.66

	Fairly available	21	20.38
	Available	36	34.95
Total		103	100
vi. Computer laboratory	Not available	9	8.73
	Fairly available	11	10.67
	Available	83	80.58
Total		**103**	**100**

It shows the availability of Computer in classroom seems to be one of the major concerns in Sant Gadge Baba Amravati University about 66 (64.07%) students responded that computer is available, about 17 (16.50%) of respondent responded that computers fairly available in classroom and 20 (19.41%) consented to the presence of computer in class room Not available.

Respondents opinion about availability of Internet connection. It shows that about 84 (81.55%) respondents stated that internet connectivity is available in university area, about 16 (15.53%) of respondents stated that it is fairly available. Very less no of respondents 3 (2.91%) stated that internet is not available.

Mean   4.2

Standard
Error   0.133333

Respondent's opinion about availability of Television set.

Shows that television set as a tool for learning in the University was lacking with a majority 64 (62.13%) of respondents responding that television set is not available, 24 (23.30%) of respondents consented that it was available and small number of respondents 15 (14.56%) said TV was not available.

 Respondent's opinion about availability of Projectors, video conferencing   equipment, computer laboratory and library.

Projectors

Further it shows that projectors for presentation of course materials were present in the university as supported by a majority 75 (72.81%) of respondents who acknowledge it is available, about 23 (22.33%) responded that projectors are fairly available while only 5(4.58%) respondents were said projectors are not available. The above finding shows that projector for presentation of course material and teaching was available in the university.

Availability of video conferencing equipment's

The above table shows that video conferencing equipment's available in university about 46 (44.66%) respondents said that is not available, about 36 (34.95%) respondents said it is available, while a small number 21(20.38%) of respondents said it is fairly available.

Computer laboratory

Above table shows that majority 83(80.58%) of the respondents responded that computers laboratories in the University were available, 11(10.67%) respondents were said fairly available, a small number 9 (8.73%) of respondents were said that computer laboratory is not available in the University.

Library

From above table majority 93(90.29%) respondents responded that library is available in the University, 6 (5.82%) respondents were said fairly available while very small number of respondents 4(3.88%) said it is not available.

Table no. 3. Showing Accessibility of ICT Resources

ICT Resources	Status	Frequency	Percentage (%)
a) Library	Never at all	5	4.85
	Not sure	1	0.97
	Sometimes	38	36.89
	Always	59	57.28
Total		103	100
b) Computer lab			
	Never at all	4	3.88
	Not sure	6	5.82
	Sometimes	29	28.15
	Always	64	62.13
Total		103	100
c)Lecture Rooms			
	Never at all	8	7.76
	Not sure	2	1.94
	Sometimes	23	22.33
	Always	70	67.96
Total		103	100
d) Resource Centers	Never at all	6	5.82
	Not sure	11	10.67
	Sometimes	42	40.77
	Always	44	42.71
Total		103	100
e) Internet			
	Never at all	5	4.85
	Not sure	9	8.73
	Sometimes	40	38.83
	Always	49	47.57
Total		103	100

Table shows that the university library and computer laboratory, lecture rooms resource centers and internet are the most popular places for students to access ICT for general use notably 59 (57.28%) library, 64(62.13%) computer laboratory, (70%) respondents access form class room, 44(42.71%) respondents always access from resource center and (47.50%) of the respondents accessed from internet always. The table shows that majority (40.77%) of respondents sometimes access from resource centers, (36.89%) of respondents were said that they access from Library, 28.15% of respondents responded that they access from computer library sometimes. And 40 (38.83%) of respondents responded that they accessed sometimes from internet.

User –ability of ICT resources and students learning

Respondents were requested to rate their knowledge and skills in the various ICT tools. In table no. their responses are summarized.

Table no. 4 Distribution of respondents by rating of student's skills in various ICT

ICT tools	Level of skill	Frequency	Percent (%)
Word Processing	Very poor	-	-
	Poor	4	3.88
	Fair	12	11.65
	Good	61	59.22
	Very Good	26	25.24
Total		103	100
MS-PowerPoint	Very poor	-	-
	Poor	4	3.88
	Fair	11	10.67
	Good	52	50.48
	Very Good	36	34.95
Total			
MS-Excel	Very poor	2	1.94
	Poor	6	5.82
	Fair	22	21.35
	Good	42	40.77
	Very Good	31	30.09
Total			100

Internet web Publishing	Very poor	9	8.73
	Poor	6	5.82
	Fair	27	26.21
	Good	38	36.89
	Very Good	23	22.33
Total			100
Presentation	Very poor	4	3.88
	Poor	3	2.91
	Fair	19	18.44
	Good	38	36.89
	Very Good	39	37.86
Total			100
Video conferencing	Very poor	9	8.73
	Poor	13	12.62
	Fair	28	27.18

Word processing

Results from above table show that majority of the respondent 61(59.22%) emphasized that their skills to use MS word processing is good. Same as 26 (25.24%) claimed that their skills were very good whereas (11.65%) rated their skills as fair, where 4 (3.88%) respondents were rated that their skill as being poor in using MS word. The finding shows that students capabilities to use MS word for their academic purpose like preparation of assignment or any work is relatively good which suggest that ICT can influence learning.

MS power point

Table recorded that majority 52(50.48%) of the respondents agreed that their skills to use MS PowerPoint were good, same as 36(34.95%) of respondents were very good in using that, whereas 11(10.67%) of respondents were fair and very small number 4(3.88%) of respondents were poor in using it.

MS-Excel

Table shows that majority of 42(40.77%) of respondents were good in using MS- Excel, whereas 31(30.09%) of respondents were very good in using Excel. 22(21.35%) respondents were responded that they are fair in using it, very small number of respondents 6(5.82%) and 2(1.94%) of respondents were responded poor and very poor respectively.

Internet web publishing

From the above table it results that majority of respondents 38(36.89%) agreed that their skills to use publishing journals, articles, through internet were good. While 27(26.21%) of respondents were fair in this, same as 23(22.33%) of respondents agreed that they were very good in web publishing, whereas small number of respondents 6(5.82%) and (8.73%) of respondents were stated that they are poor and very poor in web publishing respectively.

Presentation

Above table also results that majority of respondents 38(36.89%) and 39(37.86%) were good and very good in presentation respectively. Whereas 19(18.44%) of respondents were responded that they are fair in presentation, while a very small number of respondents 4(3.88%) and 3(2.91%) of the respondents were agreed that they are very poor and poor in presentation respectively.

Video conferencing

It spells out that 35(33.98%) of the respondents accepted that they had good skills of video conferencing. Again 28(27.18%) of respondents were accepted that their skills fair, whereas 18(17.47%) of respondents rated that their skills of video conferencing were very good. Whereas 9(8.73%) and 13(12.62%) of respondents rated that they were very poor and poor in skills of using video conferencing respectively.

Internet and email

It shows that 53(51.45%) of respondent who agreed that their skills to use internet and Email were very good. About 40(38.83%) said were good in internet and emailing. Only one respondent said that he is very poor in internet and emailing whereas 9(8.73%) of respondents were said that were fair in using internet and email.

Table no 5. Distribution of respondents by opinion on performance of learning tasks

Learning task	Option	Frequency	Percent (%)
a) Use the computer to complete course work, projects report etc.	Strongly Disagree	-	-
	Disagree	6	5.82
	Don't know	3	2.91
	Agree	60	58.25
	Strongly agree	34	33.00
Total		103	100
b) Use the computer to type own course works and assignment	Strongly Disagree	2	1.94
	Disagree	7	6.79
	Don't know	4	3.88
	Agree	56	34.36
	Strongly agree	34	33.00
Total		103	100
c) Acquisition	Strongly	1	0.97

of knowledge and skills	Disagree		
	Disagree	2	1.94
	Don't know	9	8.73
	Agree	60	58.25
	Strongly agree	31	30.09
Total			100
d)ICT made me develop interest in the learning content	Strongly Disagree	1	0.97
	Disagree	6	5.82
	Don't know	6	5.82
	Agree	56	54.36
	Strongly agree	34	33.00
Total			100
e) Access of information	Strongly Disagree	1	0.97
	Disagree	2	1.94
	Don't know	4	3.88
	Agree	63	61.1
	Strongly agree	33	32.03
Total			100
f) Use of internet to collaborate with others	Strongly Disagree	1	0.97
	Disagree	1	0.97
	Don't know	10	9.70
	Agree	64	62.13
	Strongly agree	27	26.21
Total		103	100

Table shows that student have a very positive attitude towards information technology. The respondents use computers to complete course works, projects and reports to which a majority (58.25%) agreed, while about (33.00%) respondents strongly agreed that they use computers to complete course works. A total of 6(5.82%) of respondents were disagreed. A small number of (2.91%) were not sure.

From the above it can be noticed that majority 54.36% of respondents strongly agreed to own learning using computer and internet. a 33.00% of respondent agreed to own using computer and internet. About 6.97% and 1.94 % respondents responded Disagree and strongly disagree respectively.

Table shows that majority 58.25% of the respondents agreed that ICT improves student's organizational skills. About 30.09 % strongly agreed while a small number of 0.97 % strongly disagreed, 1.94 % respondents were disagreed and 8.73% respondents were not sure internet ICT helps to acquisition of knowledge and skills.

Table also shows that majority of respondent (54.36%) were Agreed that ICT made them develop interest in the learning context. About 33.00%respondents strongly agreed to that, a small number of respondent 0.97 % respondent strongly disagreed to this and 5.8% respondents disagreed and were not sure also.

Table also shows that majority of respondents 61.16% were agreed for the question that ICT used for accessing information, about 32.03 % respondents strongly agreed for Accessing information. And small number of respondents 3.88% were not sure about that, 0.97% and 1.94 % of respondents were strongly disagreed and disagree respectively. Above table also shows that majority of the respondent 62.13% respondent agreed for the question that I use internet to collaborate with others/ team. About 26.21 % respondent were strongly agreed and while 9.70% of respondents were not sure about that and 0.97 % respondents means only one respondent were strongly disagree and disagree respectively for the internet use to collaborate with others.

Discussion on the availability of ICT resources on students learning.

The study established that the availability of the different ICT resources in the University is still very much wanting. About 16.50%of respondents were said that still computer/pc in classroom is fairly available. About 81.55% of respondent were sure of availability of Internet in University. Whereas majority62.13% of respondents was responded that television is not available in University. 22.33% of the respondents stated that projectors are fairly available in university, 46(44.66%) of respondents consented about video conferencing equipment in their department is not available. Whereas 83(80.58%) and 93(90.29%) of respondents stated that computer laboratory and library is available respectively. TV, projector, and videoconferencing equipment those ICT resources are still

very much wanting. Whereas some students of home science were said that Audio-Visual lab were available in their department.

Accessibility of ICT resources by students for learning.

The study indicated that easy access of ICT facilities was available in Sant Gadge Baba Amravati University. According to the findings majority of the students always accessed ICT facilities from library (57.28%), computer laboratory (62.13%), resource centers (42.71%), lecture rooms 67.96% and 47.57% of the respondents were agreed that they access internet. The study also shows that computer lab, lecture rooms, and library remains three most popular places to access ICT resources.

User ability of ICT resources on students learning.

The study has shown that there 61(59.22%) of the respondents rated their skills as good in MS-Word. 50.48% respondents rated as good in MS-Power point, 40.77% rated as their skills good in MS-Excel, very small number 36.89% of respondents were good in internet web publishing. Whereas 36.89% and 33.98 % of the respondents rated their skills in Presentation and video conferencing were good respectively. Same as good number of respondents 51.45% rated that their skills very good in Internet and emailing. Although the respondents scored high on ICT user ability skills, this does not mean that they use ICT effectively. Only what can be inferred is that the respondents rate their skills highly and rating the user skill is not based on any standard and measure. It is just way one perceives his or herself, however, perceiving oneself positively is a very important basis on which to judge the ability to participate effectively in an activity.

Utility of ICT resources on students learning.

The study results that majority of the students 60(58.25%) of respondents agreed for using computer to complete project reports, 33.00% of respondents were strongly agreed, 56(54.36%) of respondents rated that they use computer to type course works and assignments, 58.25% of respondents rated that they use ICT for acquisition of knowledge. Whereas 54.36% of the respondents rated that ICT made them develop interest in the learning content, 63 (61.16%) of respondent said that they use ICT to access information. Whereas 64 (62.13%) of respondents rated that they use internet to collaborate with others/team. The result shows that majority of respondents use ICT resources for their learning.

CONCLUSION

ICT infrastructure of the Sant Gadge Baba Amravati University is well developed. However, some ICT resources like Television, projectors, and video conferencing equipment sets were considered to be fairly available. University provides students with free internet connection in campus. ICT access of students of Sant Gadge Baba Amravati University was good. Whereas less than 30% of students sometimes access ICT. Students in using different ICT resources results that their skills as good in all the aspects like word processing, MS-power point, Excel, internet web publishing, presentation, videoconferencing and internet and emailing. Utility of ICT among students learning of Sant Gadge Baba Amravati University is good. University should organize programs on SWAYAM, e-PG pathshala platforms to students. Training on use of various ICT to students which are from remote areas.

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