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Influence of Information Communication Technology on Quality of Education at Private Universities in Mogadishu, Somalia

Dahir Ahmed Hassan[1]

[1]*Daha International University,*
***Author for CorrespondenceORCID ID*: https://orcid.org/0000-0002-3034-9727; *email: dyoolax@gmail.com*

ABSTRACT

The purpose of this study was to determine the influence of information communication technology (ICT). Four objectives were formulated to guide the study. These were; to assess the influence of the use of ICT in searching for reference materials in private universities in Mogadishu. to analyze the influence of universities" capacity in the provision of computers for students on quality of education in private universities in Mogadishu. To examine the influence of integration of ICT in lesson presentations on quality of education in private universities in Mogadishu, to determine the level of provision of internet connectivity in the universities on the quality education.

This study was guided by systems theory. The systems theory as seen in the works of Herbert Spencer (1860) and Emile Durkheim (1947) will guide the study. The two compared societies to organisms with structures, which consist of interrelated parts, each playing a function in the life of a total organism. In this study, the stakeholders, parents, lecturers, students, play a role for the

smooth continuation of secondary universities education by using ICT. The students are expected to work hard to achieve these goals.

The research design of the study was descriptive survey the target population for this study consisted of 45Universitiess in Mogadishu the respondents consisted of 140 lecturers and 330 students. The target population is therefore 470 respondents. The study established that a strong correlation between ICT and quality of education in private universities in Mogadishu, the additional ways of improving performance include improvement of teaching methodologies, In-service courses, workshops and seminars on the teaching methodologies of the various subject

Keywords: Communication Technology, Quality of Education, Private Universities, Somalia

INTRODUCTION

Information and Communication Technologies (ICTs) have impacted greatly on teaching, learning, research, and universities management in a number of ways. They are electronic technologies used for accessing, processing, gathering, manipulating and presenting or communicating information.

According to Daniels (2002) ICTs have become within a very short time, one of the basic building blocks of modern society. Many countries now regard understanding ICT and mastering the basic skills and concepts of ICT as part of the core of education, alongside reading, writing and numeracy. However, there appears to be a misconception that ICTs generally refers to computers and computing related activities". This is fortunately not the case, although computers and their application play a significant role in modern information management (W.J., Law, 2003), other technologies and/or systems also comprise of the phenomenon that is commonly regarded as ICTs. Pilgrim and Law (2003) state that near the end of the 1980s, the term „computers" was replaced by „IT" (information technology) signifying a shift of focus from computing technology to the capacity to store and retrieve information. This was followed by the introduction of the term „ICT" (information and communication technology) around 1992, when e-mail started to become available to the general public (Pilgrim, 2003). According to a United Nations report (1999) ICTs cover Internet service provision, telecommunications equipment and services, information technology equipment and services, media and broadcasting, libraries and documentation centers, commercial information providers, network-based information services, and other related

information and communication activities. According to UNESCO (2002) information and communication technology (ICT) may be regarded as the combination of

„Informatics technology" with other related technology, specifically communication technology. The various kinds of ICT products available and having relevance to education, such as teleconferencing, email, audio conferencing, television lessons, radio broadcasts, interactive radio counseling, interactive voice response system, audiocassettes and CD ROMs etc have been used in education for different purposes (Sharma, 2003; Sanyal, 2001; Bhattacharya and Sharma, 2007)..

The field of education has been affected by ICTs, which have undoubtedly affected teaching, learning, and research (Yusuf, 2005). A great deal of research has proven the benefits to the quality of education (Al-Ansari, 2006). information and communication technology (ICTs) have the potential to innovate, accelerate, enrich, and deepen skills, to motivate and engage students, to help relate universities experience to work practices, create economic viability for tomorrow's workers, as well as strengthening teaching and helping universitiess change (Davis and Tearle, 1999; Lemke and Coughlin, 1998; cited by Yusuf, 2005).As Jhurree (2005) states, much has been said and reported about the impact of technology, especially computers, in education. Initially computers were used to teach computer programming but the development of the microprocessor in the early 1970s saw the introduction of affordable microcomputers into universitiess at a rapid rate. Computers and applications of technology became more pervasive in society which led to a concern about the need for computing skills in everyday life. Hepp, Hinostroza, Laval and Rehbein (2004) claim in their paper "Technology in Universitiess: Education, ICT and the Knowledge Society" that ICTs have been utilized in education ever since their inception, but they have not always been massively present. Although at that time computers have not been fully integrated in the learning of traditional subject matter, the commonly accepted rhetoric that education systems would need to prepare citizens for lifelong learning in an information society boosted interest in ICTs (Pelgrum, W.J., Law N., 2003).

RESEARCH METHODOLOGY

Research design

The research design employed in the study is descriptive survey, to establish the influence of ICT on quality of education in private universities in Mogadishu, Somalia. Kerlinger and Lee (2000)

points out that descriptive studies are not only restrictive to fact finding but may often result in formulation of important principles of knowledge and solution problem. It involves measurement, classification analysis comparison and interpretation of data. Descriptive survey is a method of collecting information by interviewing and administering a questionnaire to a sample of individuals Orodho (2003). Since the study is on determining the ICT integration in universitiess it require examination of the recent situation in universitiess hence the design is appropriate.

Target population

According to Kombo and Tromp (2006) population is a group of individual, objects or items from which samples are taken to measurements. The target population for this study consisted of 45 Universitiess in Mogadishu the respondents consisted of 140 lecturers and 330 students from the selected districts in the city. The target population is therefore 470 respondents.

Sample size and sampling techniques

Kombo and Tromp (2006) defines a sample as a finite part of the statistical population whose properties are studied to gain information about the whole. In this study, sample is a set of respondents selected from a larger population for the purpose of survey. Sampling is the procedure are researcher uses to gather people, places, or things to study (Kombo & Tromp, 2006).

Borg and Gall (1989) explained that a minimum of 30 thirty respondents can be used but that the larger sample, the more likely the respondents scores on the measured variable is to the representative of population scores, considering this researcher, chose 20 universitiess and 47 lecturers and 50 students (Borg & Gall, 1989). This implies that the target population is 140 lecturers and 330 students, the total of responds are 470 responds. Simple random sampling technique is used to select the 20 universitiess from 90 universitiess in Mogadishu and 47 lecturers" from140 lecturers and 50 students from 330 students in the following process, all the universitiess will write on pieces of paper which are then folded into balls and put in a closed container. The container will shake vigorously before picking one at a time and noting the universities it represents. Picking the pieces of papers will do without replacement each time. The process is repeated until the 20 universitiess and 47lecturers and 50 students found.

Data collection procedures

The researcher wrote letters to the head lecturers to be allowed to do the study in their universitiess. The selected universitiess visited and the questionnaires Administrated to the respondents. The respondents were assured that strict confidentiality would be maintained in dealing with the identities. The questionnaires were collected at the possible time.

Data analysis techniques

After the data is collected, it sorted and cleaned. Data is coded and organized into themes and used description of behavior and context in which it is to occur. Data gathered is coded for analysis. This is done after editing and checking out whether all questionnaires have been filled in correctly. Coding is assigning a code number to each answer to a survey question. This is then entered into Statistical Package for Social Sciences (SPSS) software to generate the required descriptive statistics namely frequencies and percentages.

Brinker (1988) compete that the simplest method to present data is in frequency or percentage tables, which summarizes data about single variable.

Table 4.1 indicates that the most of lecturers were aged between 30 and 35 years.
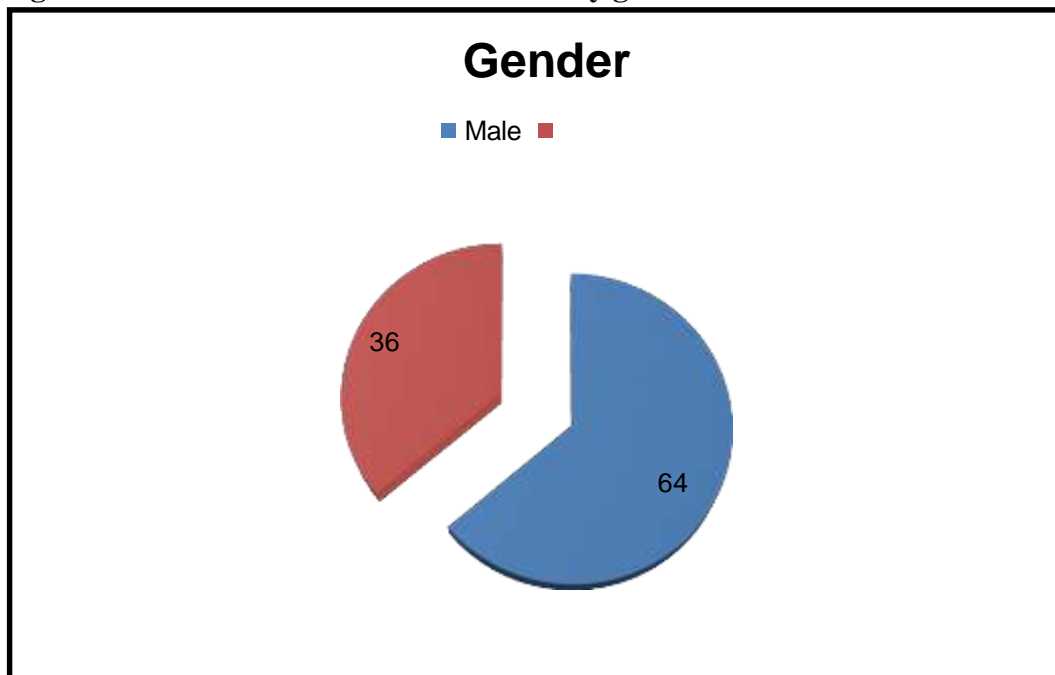
DATA

Age	Frequency	Percent
20-25 years	12	25.5
25-30 years	18	21.3
30-35 years	10	38.3
35-40 years	4	8.5
above40 years	3	6.4
Total	47	100.0

PRESENTATION, ANALYSIS AND INTERPRETATION

Demographic data of the lecturers

Figure4.1:   Distribution of the lecturers by gender

Table 4.1: Distribution of the lecturers according to age

Figure 4.1 shows that the majority of the lecturers were male at 64%. The data shows that most of the universitiess were dominated by male lecturers.

Table 4.2: Distribution of the lecturers according to academic qualification

Academic qualification	Frequency	percent
Secondary	5	10.6
Bachelor	11	23.4
Master	27	57.4
Other	4	8.5
Total	47	100.0

Data shows that the majority of lecturers had Masters in education. Different professional qualification of lecturers will affect the way they interpret their teaching and use of ICT.

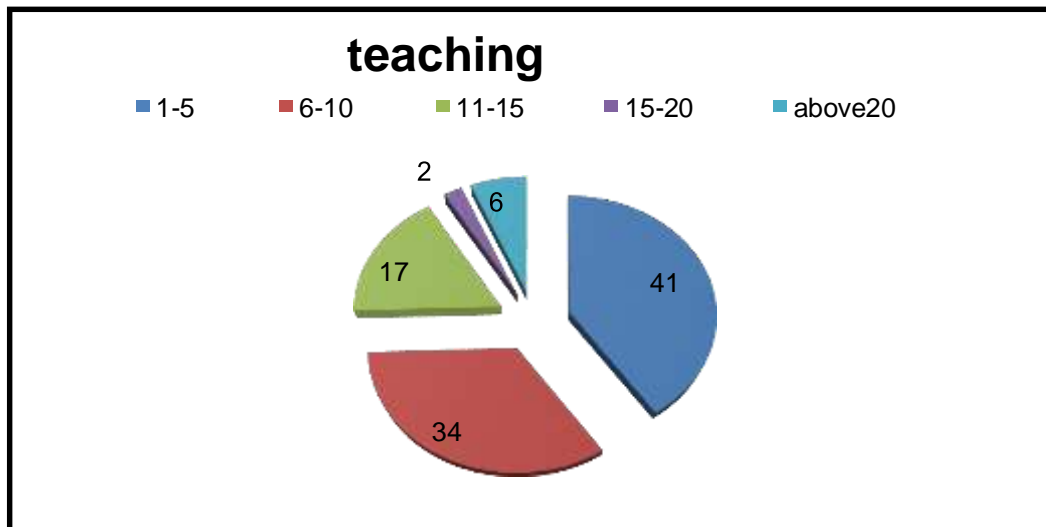**Figure 4.2: Distribution of the lecturers according to teaching experience**

Figure 4.2 indicates that 41 percent of the lecturers had served in teaching experience position for 1-5 years. This confirms that lecturers in private universities in Mogadishu have adequate experience that would enable them provide education on their universitiess.

4.0.1: Demographic data of the students

The demographic data of the students was based on their gender, age, level of Education and shift

of the study. To establish the gender of the students, they were asked to indicate their gender.

Figure 4.3: Distribution of the students according to gender

Student's gender
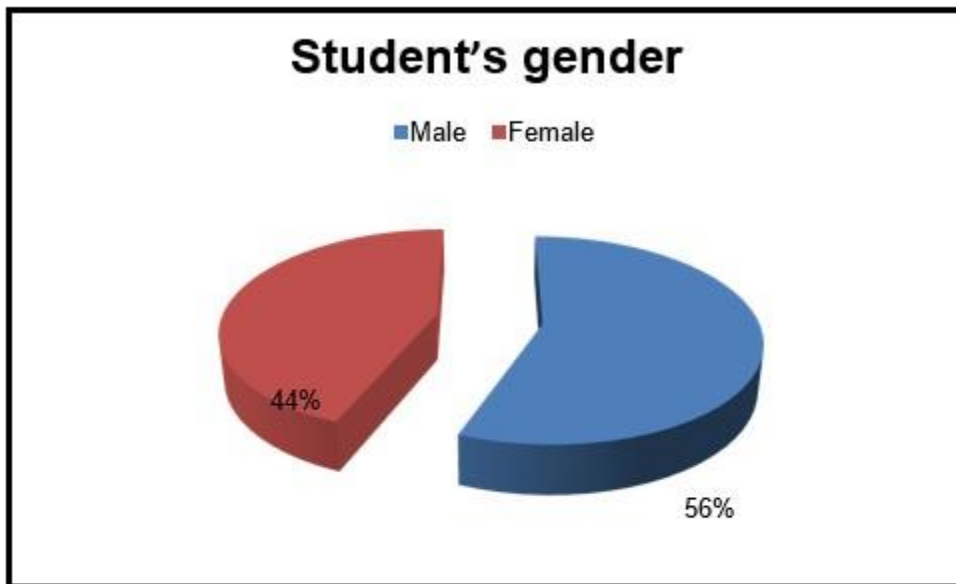
■Male ■Female

44%

56%

Figure 4.3 shows that there is a few dissimilarity between Male and female in private universities

in Mogadishu and there is increasing number of girls who are joining in universities which may

increase the number of female in private universities in Mogadishu.

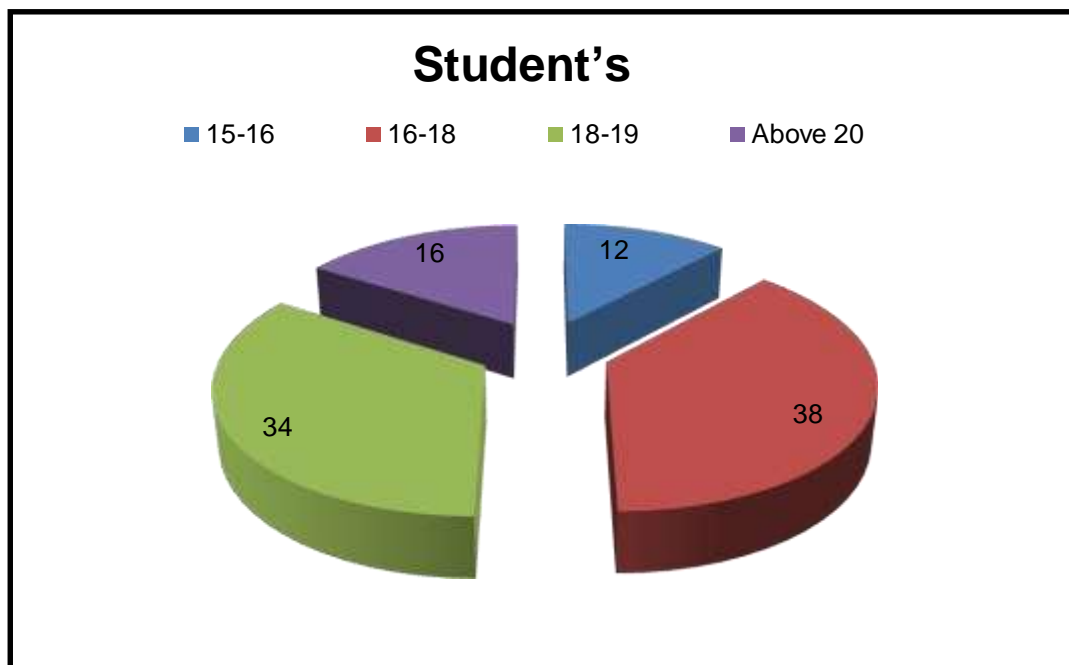**Figure 4.4: Distribution of the students according to by age**

Figure above shows that most students were aged between 16-18 years, 18-19 years while some

of them were above 20 years.

Table 4.3: Distribution of the students according to level of education

Grades	Frequency	percent
Semester two	11	22.0
Semester four	10	20.0
Semester five	18	36.0
Semester six	11	22.0
Total	50	100.0

Table 4.3 indicates that the most of the students were Semester five and Semester six while others were Semester two

and Semester four.

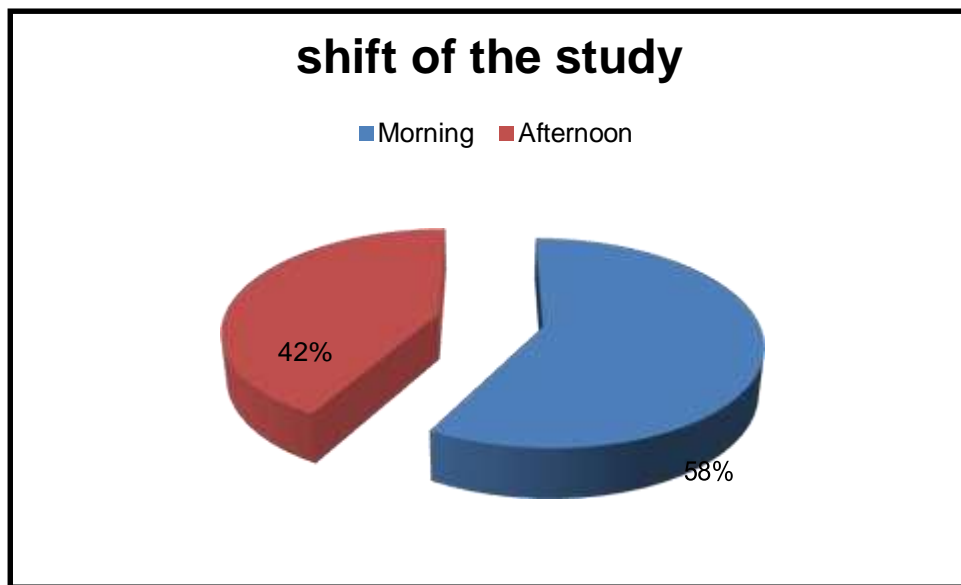**Figure 4.5: Distribution of the students according to shift of the study**

Figure 4.5 indicates shift of the study, the researcher wanted to know which shift of the study was more is it morning or afternoon and this figure shows that shift morning was the most one which secondary students in Mogadishu were studying at morning time.

Table 4.4: Lecturers' response on how often do they prepare their lessons with ICT

statement	frequency	percent
Always	13	27.7
Sometimes	21	44.7
Rarely	7	14.9
Never	6	12.8
Total	47	100.0

Table above shows that the majority of the lecturers were spending their time to prepare their lessons with ICT which may enhance students" attention towards lessons.

Figure 4.6: lecturers' response how often do they download/upload /browse material from the universitiess' website
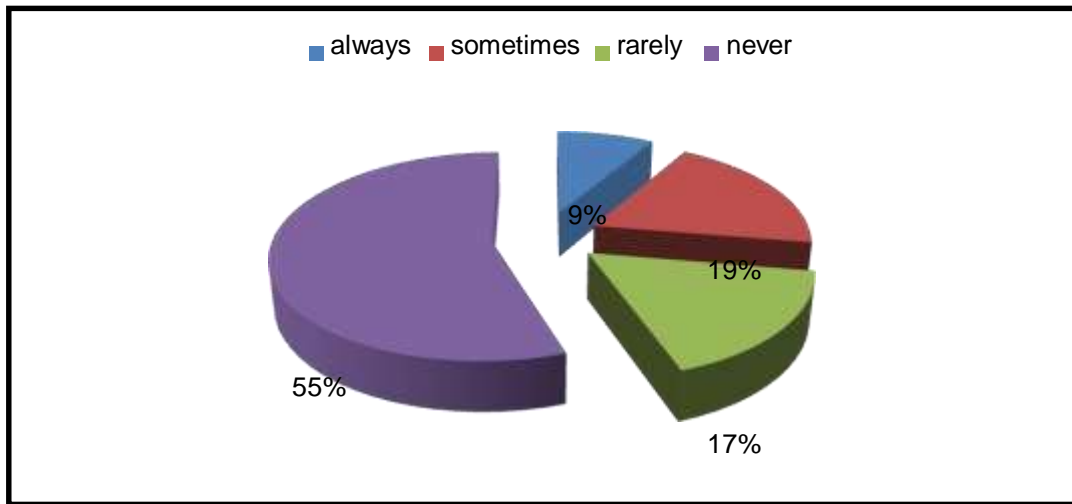

Figure 4.6 indicates that the majority of lecturers were not downloaded /browsed materials from universitiess „website   and this shows that universitiess' websites were not developed , lecturers who always download reference materials from universitiess' website were **9%** while lecturers who don't download reference materials from universitiess' website   were **55%** The data is presented in figure 4.6

**Table 4.5: Lecturers' response on the internet communication with ICT (e.g. Email)**

Duration	Frequency	percent
always	25	53.2
sometimes	11	23.4
rarely	5	10.6
never	6	12.8
Total	47	100.0

Table above shows that majority of the lecturers were using ICT as communication tools, **53%** answered "always" which means that the most of the lecturers used ICT as communication tools.

Table 4.6: Lecturers' response on accessibility of desktop computer at the universities and at home

Accessibility	Frequency	Percent
no access	15	31.9
access on the universities	19	40.4
access on home	7	14.9
demand on access	6	12.8
Total	47	100.0

Table 4.6 indicates that **40.4%** of the lecturers had access desktop computer on the universities while **31.9%** had no access desktop computer at all, the accessibly of desktop computer in the universities may enhance integration of ICT with class presentation.

Figure 4.7: Lecturers' response on accessibility of laptop computer at universities or home
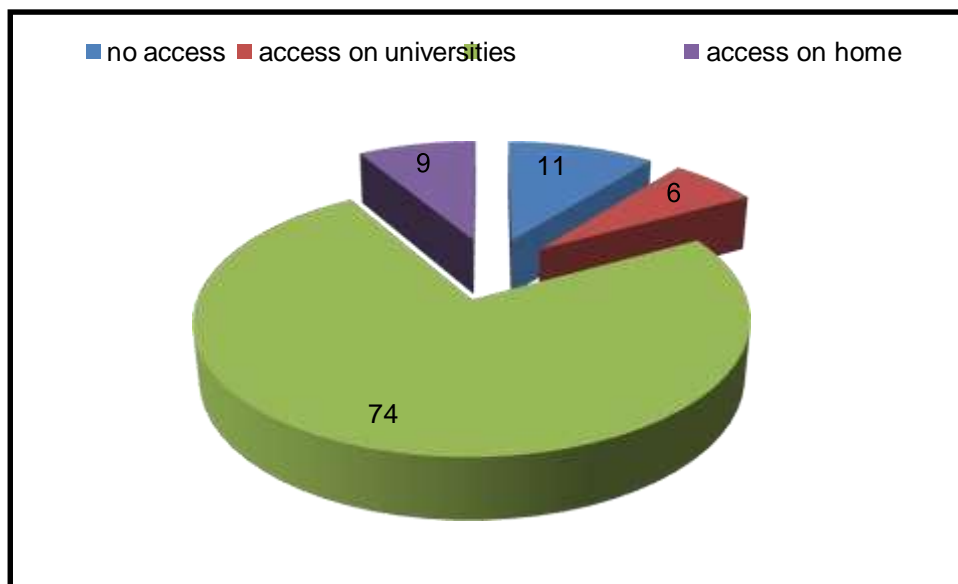
The finding figure 4.7 shows that the majority of the lecturers had accessibility of laptop computer at home; since 74% of the lecturers had access on the home while a few lecturers had accessibility of laptop computer at universities they were 6% of the lecturers, data is presented figure 4.7

Table 4.7: Lecturers' response on students' interest to use ICT in education in class presentation

Statement	Frequency	Percent
strongly agree	21	44.7
Agree	16	34.0
strongly disagree	3	6.4
Disagree	7	14.9
Total	47	100.0

Table 4.7 indicates that 78% of the lecturers pointed that the students had interested to use ICT in education and class presentation and this finding shows that the ICT had improved way of teaching in private universities in Mogadishu since students were much interested to use ICT in education.

Figure 4.8: Lecturers' response on if ICTs have made education easier during class presentation
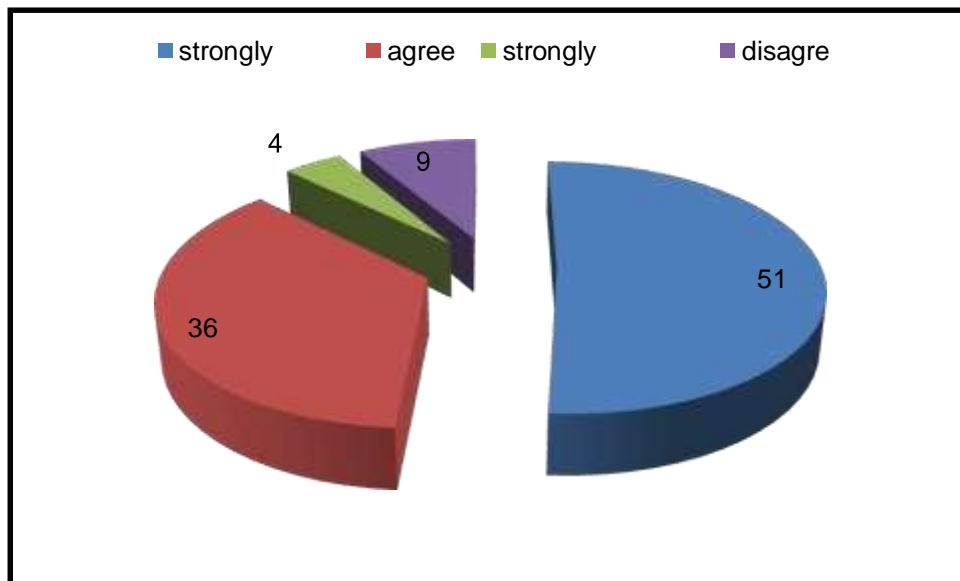

Figure above shows that 51% of lecturers had strongly agree that ICT have made education easier during class presentation while 36% of lecturers had agree that ICT have made education easier during class presentation, and this finding shows how ICT had made education easier in private universities in Mogadishu

Table 4.8: Lecturers' response on how they feel comfortable with the idea of the computer as a tool in teaching and learning

statement	frequency	percent
strongly agree	31	66.0
agree	9	19.1
strongly disagree	2	4.3
disagree	5	10.6
Total	47	100.0

Table 4.8 shows 66% of the lecturers had strongly felt comfortable with the idea of the computer as a tool in teaching and learning and this finding shows that lecturers had moved traditional teaching into modern teaching.

Figure 4.9: Lecturers' response on if the computer is not helpful to student learning because it is not
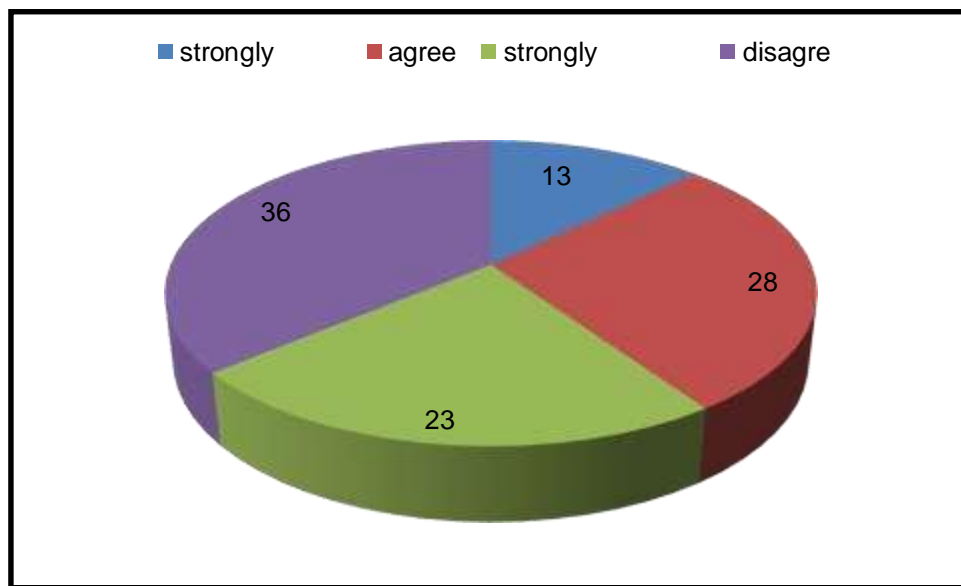
easy

Figure 4.9 shows that 36% of the lecturers had answered "disagree" which means that the computer is helpful to student while 13% of the lecturers had answered "strongly agree" which means that the computer is not helpful to student learning because it is not easy.

Table 4.9: students' response on knowledge of word processing (e.g. Word)

statement	Frequency	Percent
I cannot use it	6	12.0
I can use it to small extent	29	58.0
I can use it well	7	14.0
I can use it very well	8	16.0
Total	50	100.0

Table above indicates that 58% of students could use word processing to small extent while 12% of students couldn't use word processing and this shows that majority of students could use word processing

Figure 4.10: students' response how of often do they communicate online with parents (e.g. E-mail)
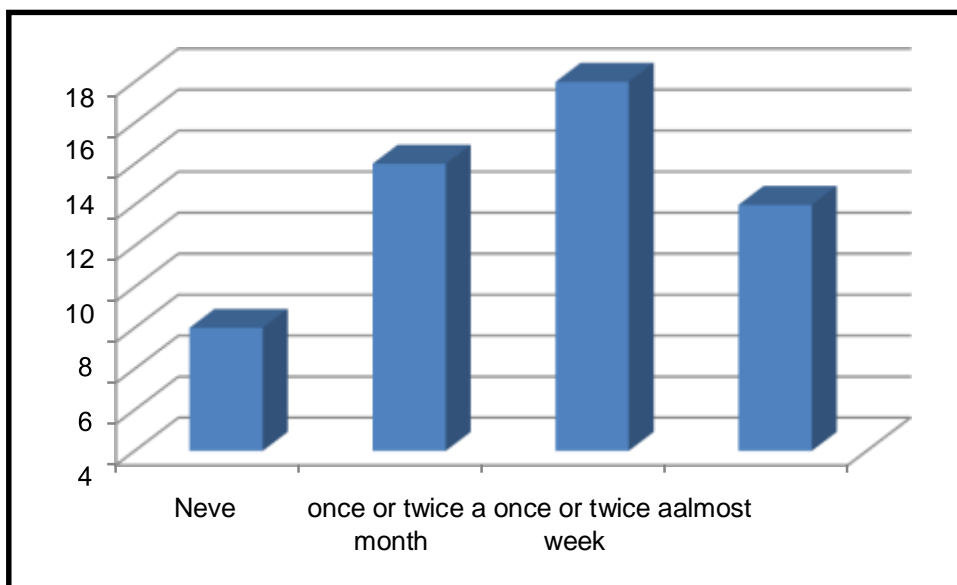

Figure 4.10 shows that the majority of students had often communicate with parents once or twice a week while some of them had communicate with their parents almost every day , we can understand this findings that the students spare more time with the communication.

Table 4.10: students' response on how often do they search internet for reference material with ICT

statement	Frequency	Percent
Never	4	8.0
once or twice a month	28	56.0
once or twice a week	12	24.0
almost every day	6	12.0
Total	50	100.0

Table 4.10 indicates that 56%of the students had searched internet for reference

material while a few of them didn't search internet for reference materials and this

finding shows that the majority of students downloaded/uploaded from the different

worldwide websites by using ICT. **Figure 4.11: students' response on if they have**

undertaken introductory courses on internet use and general applications (basic

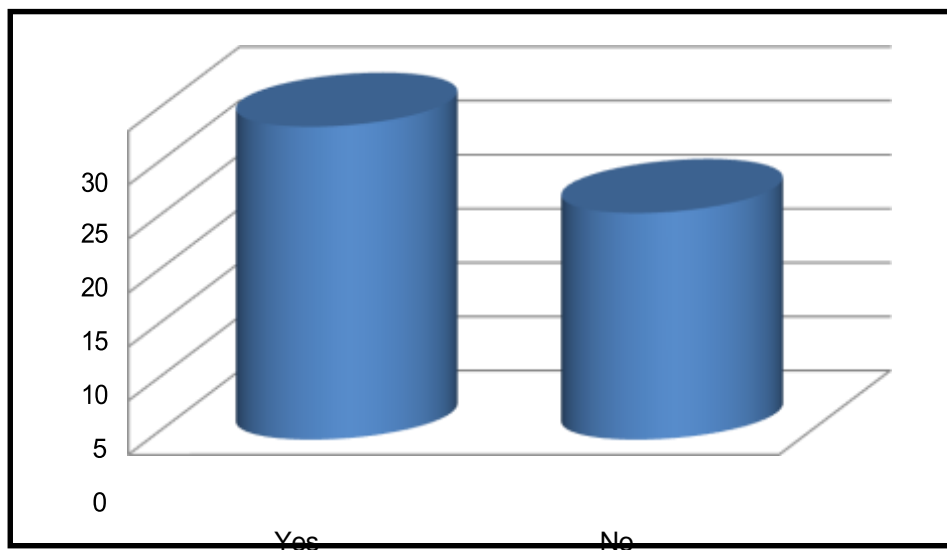**word processing) in the past two universities academic years**

Figure 4.11 shows that majority of the students had undertaken introductory courses on internet

use and general applications in the past two universities academic years while some of them hadn't

undertaken introductory courses on ICT and this finding shows that knowledge of ICT had

increased through courses provided by universitiess in Mogadishu.

Table 4.11: students' response on if they have undertaken course on pedagogical use of ICT in teaching

and learning

statement	Frequency	Percent
Yes	18	36.0
No	32	64.0
Total	50	100.0

Table above shows that the 64% of the students hadn"t undertaken course on pedagogical use of

ICT in teaching and learning while 36%of the students had undertaken course on pedagogical use

of ICT and this finding shows that there was a few courses on pedagogical use of ICT in teaching

and learning.

Figure 4.12: students' response on if they spare their time personal learning about ICT in their own time
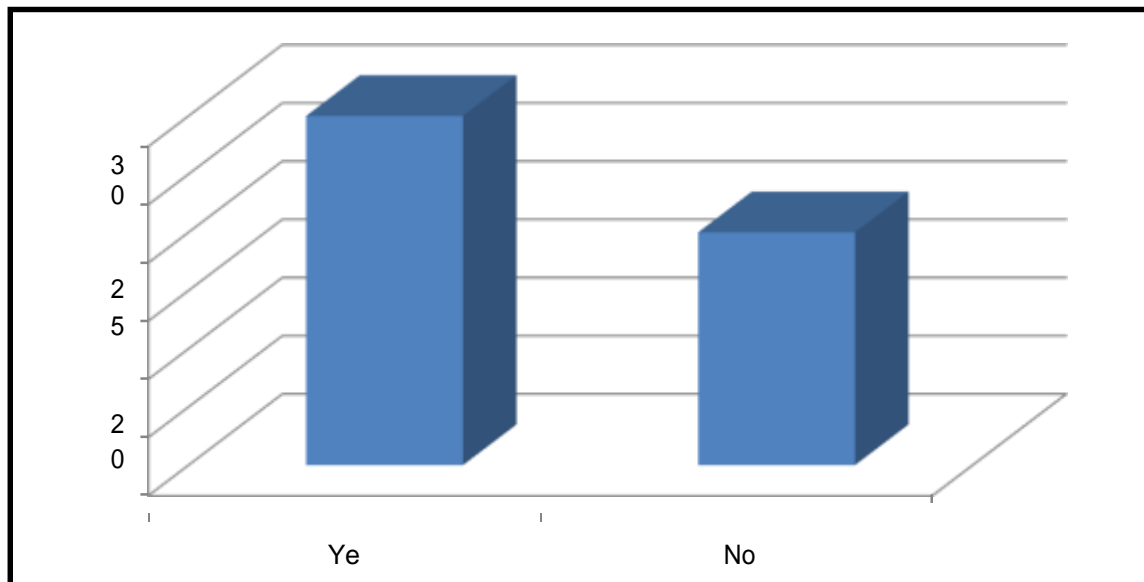

Figure above indicates that the majority of the students had spent their time personal learning about

ICT in another universities in order to get extra knowledge about ICT use in education and parents

paid extra fee about ICT learning in another universitiess.

Table 4.12: students' response on if the parents not in favor of the use of ICT at universities

statement	Frequency	Percent
Yes	22	44.0
No	28	56.0
Total	50	100.0

Table 4.16 shows that 56% of the students had answered "NO" which means that parents in favored of the use of ICT at universities and parents bough ICT tools to their students such as laptop computer and also paid internet boundless to use social networks to communicate with their colleagues.

FINDINGS

Data revealed that the majority 64% of the lecturers were male; the majority 36%

Of the lecturers were female; 38% of the lecturers were aged between 25 and 30 years Majority 57.4% of lecturers had bachelors in education; while 23% of the lecturers had mastered different filed of education.

40.4% of the lecturers were experienced between 1-5 years while 6.4% experienced above 20 years. The findings were anchored on the research questions that were formulated from the research objectives of the study. Lecturers in private universities in Mogadishu found that the majority of the lecturers were spending their time preparing their lessons with ICT which may enhance students" attention towards lessons.

The study also found that the majority of lecturers were not downloaded /browsed materials from universitiess „websites and this shows that universities" websites were not developed, lecturers who always download reference materials from universitiess" website were 9% while lecturers who don"t download reference materials from universitiess" website were 55% The data were presented in figure 4.7 and also researcher found that majority of the lecturers were using ICT as communication tools, 53% answered "always" which means that the most of the lecturers used ICT as communication tools.

Findings on lecturers" accessibility of desktop computer at universitiess indicated that 40.4% of the lecturers had access desktop computer on the universities while 31.9% had no access

desktop computer at all, the accessibly of desktop computer in the universities may enhance integration of ICT with class presentation.

Findings on lecturers" accessibility of laptop computer at home and universities showed that the majority of the lecturers had accessibility of laptop computer at home; since 74% of the lecturers had access on the home while a few lecturers had accessibility of laptop computer at universities they were 6% of the lecturers, data is presented figure 4.8

Findings on students" interest to use ICT in education indicated that 78% of the lecturers pointed that the students had interested to use ICT in education and class presentation and this finding showed that the ICT had improved way of teaching in private universities in Mogadishu since students were much interested to use ICT in education. Findings on how the lecturer felled comfortable with the idea of the computer as a tool in teaching and learning showed that 66% of the lecturers had strongly felt comfortable with the idea of the computer as a tool in teaching and learning and this finding showed that lecturers had moved traditional teaching into modern teaching.

Findings on students" knowledge of word processing indicated that 58% of students could use word processing to small extent while 12% of students couldn"t use word processing and this shows that majority of students could use word processing and they wrote their documents and text by using word processing. Findings on students" response on how often do they search internet for reference material with ICT indicated that 56% of the students had searched internet for reference material while a few of them didn"t search internet for reference materials and this finding shows that the majority of students downloaded/uploaded from the different worldwide websites by using ICT. Finding on students" response on if they have undertaken introductory courses on internet use and general applications (basic word processing) in the past two universities academic years found that majority of the students had undertaken introductory courses on internet use and general applications in the past two universities academic years while some of them hadn"t undertaken introductory courses on ICT and this finding shows that knowledge of ICT had increased through courses provided by universitiess in Mogadishu.

Finding on students" response on if they have undertaken course on pedagogical use of ICT in teaching and learning showed that the 64% of the students hadn"t undertaken course on pedagogical use of ICT in teaching and learning while 36% of the students had undertaken

course on pedagogical use of ICT and this finding shows that there was a few courses on pedagogical use of ICT in teaching and learning in private universities in Mogadishu.

CONCLUSIONS

Based on the findings of the study, the study established a strong correlation between ICT and quality of education in private universities in Mogadishu, the study found that the majority of the lecturers were using ICT in their teaching and changed their way of teaching from traditional teaching into modern teaching, the study also concluded that students in private universities had used ICT in searching for reference materials , it was also concluded that the lecturer felled comfortable with the idea of the computer as a tool in teaching and learning.

The study also concluded that the majority of the students have undertaken introductory courses on internet use and general applications (basic word processing) in the past two universities academic years while some of them hadn't undertaken introductory courses on ICT and this finding shows that knowledge of ICT had increased through courses provided by universities in Mogadishu.

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