

Impact of information Technology on Higher Institution of learning: A Case Study Njala University

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ABSTRACT: Njala University as a higher institution of learning remains to be on top of academic challenges in the educational processes in Sierra Leone. And for the past five years, information technology is being offered at various disciplines. One needs to know the impact of such programmes on students. So what is likely the impact of information technology on Njala University? The targeted population for the study comprises student in the Njala University. Priority was placed on student in the school of technology and schools that offered courses or programs that deals with information technology. Out of the targeted population, one hundred and fifty students were randomly selected and interviewed from Njala and Bo campuses. Forty five percent (45%) of the students agreed that they normally bring laptop to class while fifty five percent (55%) did not agree. Eleven percent (11%) of the students were unskilled in Microsoft Word, fifty nine percent (59%) were skilled and thirty percent (30) were very skilled respectively. Sixty four percent (64%) were skilled in Microsoft Excel and thirty six percent (30%) were very skilled respectively.. Fifty six percent (56%) of the students were skilled in the use of Firewalls, Antivirus Software while forty eighty percent (48%) were very skilled in the use Firewalls & Antivirus Software. Nearly fifty percent (50%) of the students each week in Njala University spent 1 to 2 hours on classroom activities and studying using electronic device; seventeen percent (17%) 3 to 5 hours; one percent (1%), 11 to 15 hours and three percent (3%) 16 to 20 hours respectively. On library resource to complete a course assignment thirty one percent (31%) spent 1 to 2 hours each week; nineteen percent (19%) 3 to 5 hours; thirty five (35%) 6 to 10 hours; four percent (4%); 11 to 15 hours and four percent(4)% 16 to 20 hours respectively.

Keywords: Impact, Information Technology, Institution, Learning

ACKNOWLEDGMENT

I owe depth of gratitude to God Almighty through Jesus for giving me knowledge, wisdom and understanding throughout my academic pursuit.

My sincere thanks go to Miss Marian Johnson who works assiduously as a typist to ensure that this work comes to an end. I am particularly grateful to my wife for her architectural role in my academic activities. Thanks and appreciations go to my mother and late father, they nurtured me to the level I am today.

INTRODUCTION

BACKGROUND

The combination of education and technology has been considered the main key to modern human progress. Education feeds technology which in turn forms the basis of education. It is therefore evident that information technology has affected changes to the methods, purpose and perceived potential of education.

Being able to access large databases of information fundamentally changes education, since learners can now be creators and collaborators in the access and construction of discourses of information. Due to their technological literacy, young people can derive cultural capital from their understanding of modern information technology, and thereby have input into educational changes. The same technology also facilitates the rapid exchanges of information by researchers on specific topics, so that the speed of the distribution of information is greatly increased. The increased access to huge amounts of data means students need help selecting, evaluating and analyzing information, and they need to learn how to determine the currency, validity and veracity of the information itself. All of these changes in learning have implications for teaching practice as well.

Sierra Leone, like other developing sub-Saharan countries needs Information Technology (IT) as a prerequisite for sustained infrastructure development. For example, India and China have embraced and used information technology to their advantage and their strategic roles in science have put them on the G-20 list of emerging market countries. Sierra Leone must take advantage of development opportunities in its initiation such as those offered by World Bank (development) or the U.S Agency for International Development (dot.com. Alliance) etc.

An evaluation of Sierra Leone Development goals including but not limited to the poverty reduction strategy paper (PRSP), National Commission for privatization Act 2002 (NCP), and Truth and Reconciliation Commission (TRC) recommendations, etc should ultimately help determine request for establishing Information Technology standards. In which these standard must be evaluated to see if they are meeting the international standards.

The highest level of change occurring in relation to information technology and education is in the way teaching is increasingly being seen as occurring via the medium of technology, rather than utilizing technology as an additional extra in the classroom. Information technology particularly impacts course content and teaching methodology and the recruitment and training of teaching staff as well as the content of courses. Information technology requires teachers to learn new sets of skills. Utilizing computer technology improves the educational experience of the students-not so much because of the media itself, but because software programs require teachers to think laterally and systematically, and produce better teaching materials.

SIGNIFICANCE OF THE STUDY

While education in the past has been centered on the teaching and learning, information technology has affected changes to the aims of education. Therefore, now education is increasingly perceived as the process of creating, perceiving, integrating, transmitting, and applying knowledge. The perceptions of knowledge itself have also changed where as knowledge could once have been perceived as unchanging; it should be perceived as “refinery, creative, personal and pluralistic”. The future of education is not predetermined by modern information technology, but rather that this “future will hinge prominently on how we construct (and construe) the place of technology” in the education process. We are moving from “just-in-case” education to “just-for –you education” where education is targeted to meet the needs to individual students.

Information technology frees education institutions from the constraints of space and time, and enables the delivery of education services anywhere, anytime. Therefore we can foresee a future where physical libraries would be replaced by digital libraries available to anyone; and that scholar could cease to be located around a geographical focus and will probably become increasingly “located” around a specialization, but physically located anywhere in the world. We could also imagine a day when modern technology will enable students in a given location to access the best of teachers in a given field and to interact with them, whether “live “or via video.

While various authors have differed in their opinion of the degree, desirability and destiny of these changes, they all agree that change processes have certainly been underway. However, the process of change is far from over.

STATEMENT OF THE PROBLEM

Njala University as an institution remains to be on top of academic challenges in the educational processes in Sierra Leone. And for the past five years, information technology has being offered at various disciplines. One needs to know the impact of such programmes on students. So what is likely the impact of information technology on Njala University? What is the strategic importance of information technology to the University? The mission of colleges and universities as creators and consumers of valuable

knowledge and information can no doubt be greatly improved if information technology is strategically and proactively embraced in support of the institution's mission. If we are reactive, information technology may have the opposite disruptive effect.

According to vision 2025 in Sierra Leone, there is need for the restoration and promotion of positive aspects of our national culture and the development of science and technology base to keep in pace with the advances that any world taking place in the rest of the world with Njala University no exception

RESEARCH QUESTIONS

The following questions will address the gravity of the problem

- What type of electronic devices are used by students
- What technology is used in structured courses or programmes
- What better understanding students experience with Information Technology

AIM: The aim of this research is to uncover the impact of student Information Technology use in higher education

OBJECTIVES: The specific objectives of this research are to

- Identify the use of electronic devices by students at Njala university
- Evaluate the use of technology in the teaching of courses at various levels at Njala University
- To better understand students' experience with Information Technology at Njala University

LIMITATIONS OF THE RESEARCH

A sample is used rather than the entire population. The research will be limited also only to Njala University, as an academic institution, because of time and money.

RESEARCH METHODOLOGY

RESEARCH DESIGN

This research deals with some of the strategies or procedure used in the collection of data. Descriptive and analytical case-study which seeks to investigate: 'The impact on student information technology use on skill in higher education Njala University as a case-study'.

This research also ex-post factor design in the sense that the researcher does not have direct control over independent variables because the manifestations have already occurred or because they are inherently manipulable. It is a descriptive survey in that questionnaire are prepared and administered to student in Njala University.

RESEARCH POPULATION

The target population for the study comprises student in the Njala University. Priority was placed on student in the school of technology and schools that offered courses or programs that deals with information technology.

The following campuses were considered respectively

- Njala University – Njala campus
- Njala university-Bo campus (Towama)

SAMPLING PROCEDURE AND SAMPLE

Out of the targeted population, one hundred and fifty students were randomly selected from Njala and Bo campuses using fully structured questionnaire.

DATA COLLECTED AND PROCEDURES

The information for this research was based on the selected objective to determine the impact of student information technology use and skills in higher education. It was collected from the questionnaire administrators. The questionnaire was fully structured with instruction to ensure proper fillings.

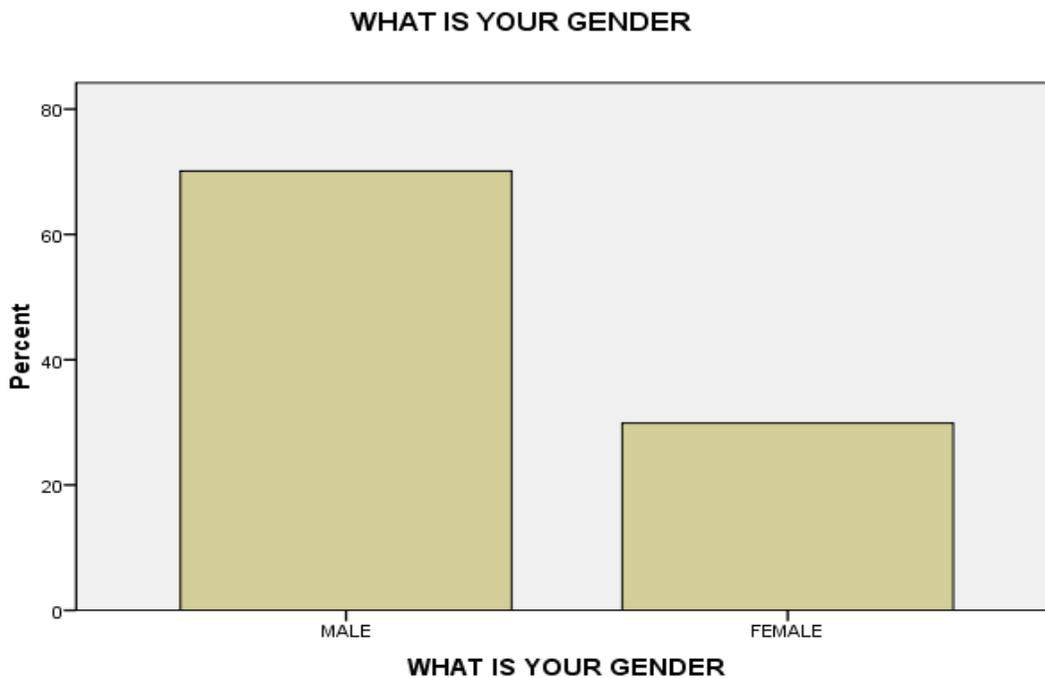
DATA ANALYSES AND RESULTS

Statistical tools such as SPSS were used. Analysis of variance (ANOVA) was also used to do some test.

PRESENTATION AND ANALYSIS OF DATA

GENDER DISTRIBUTION OF RESPONDENTS

Figure 1.1: Bar Chart of Gender Distribution of Respondents



QUESTIONNAIRE ADMINISTERED

One hundred and fifty (150) questionnaires were administered to students of Njala University; eighty (80) for Njala campus and seventy (70) for Bo campus but only one hundred and two (102) questionnaires were retrieved from both campuses.

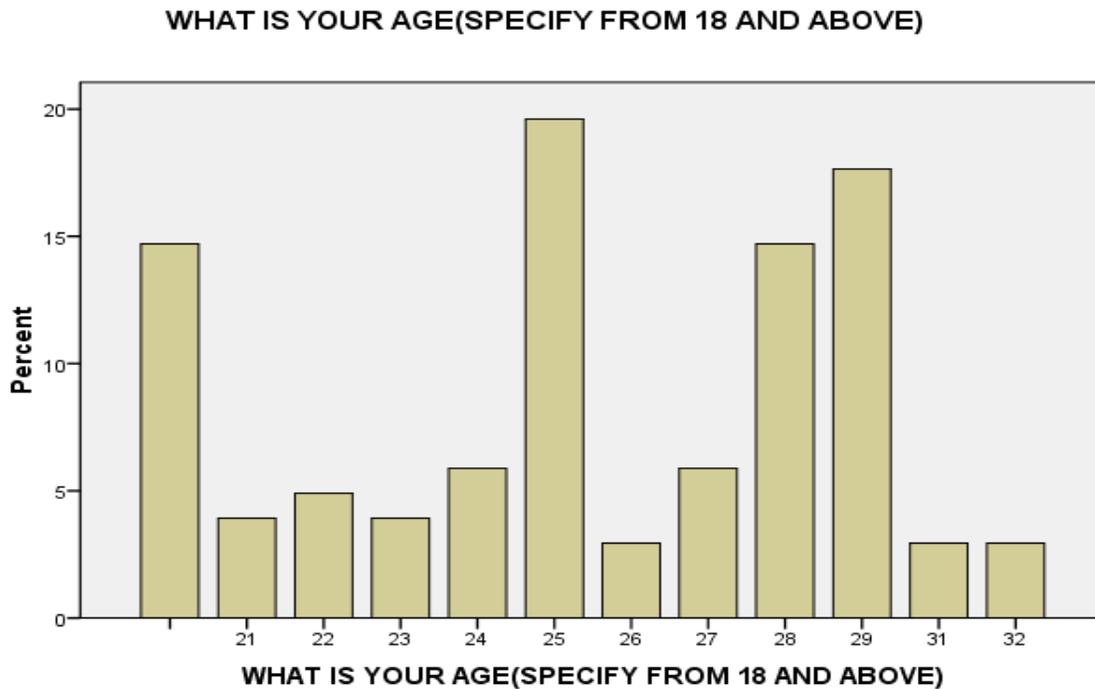
GENDER DISTRIBUTION OF RESPONDENTS

MALE: 61 males responded, which gives 70% as valid percentage of those students who responded to the questionnaire as clearly indicated by fig 4.1 above.

FEMALE: 26 females responded which gives 30% as valid percentage of female students who responded to the questionnaire. 15 students never indicated their sex which represents 15% as invalid percentage of students who responded but could not indicate their sex.

AGE DISTRIBUTION OF RESPONDENTS

Figure 1. 2 Bar Chart of Age of Respondents



AGE OF RESPONDENTS

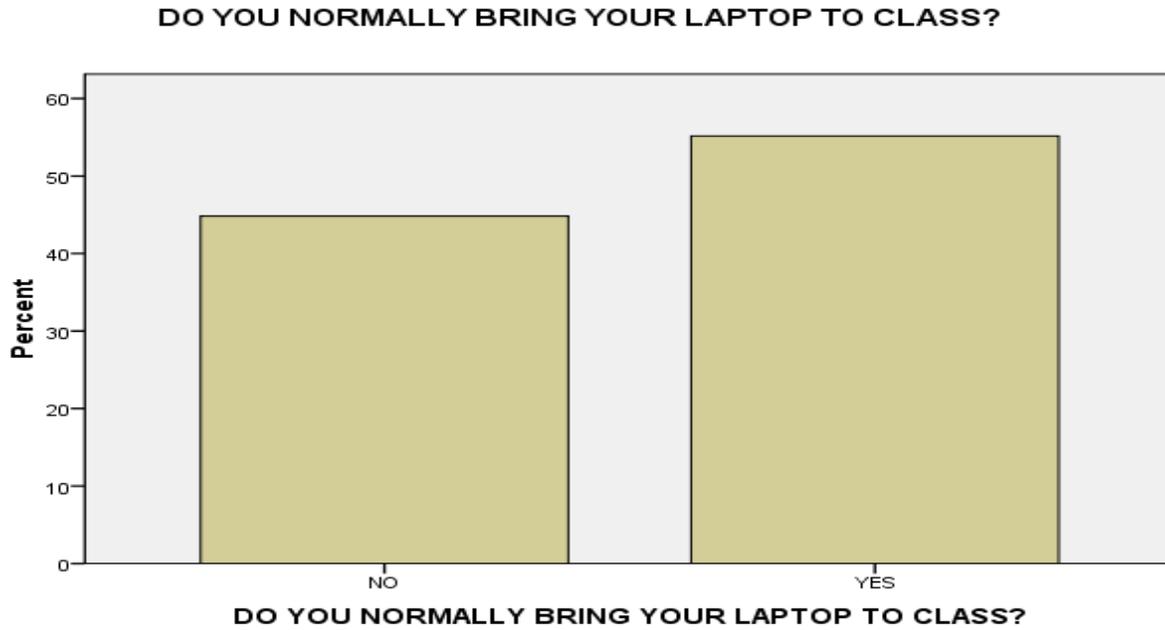
18 years and below: 15% of those who responded to the questionnaire were below the age of 18.

Age between (21-29) years: 79% of the age bracket between the age-range (21-29) responded to the questionnaire.

30 years and above: 6% of those who responded to the questionnaire were 30 years of age and above.

DISTRIBUTION OF RESPONDENTS WHO USUALLY BRING LAPTOPS TO CLASSES

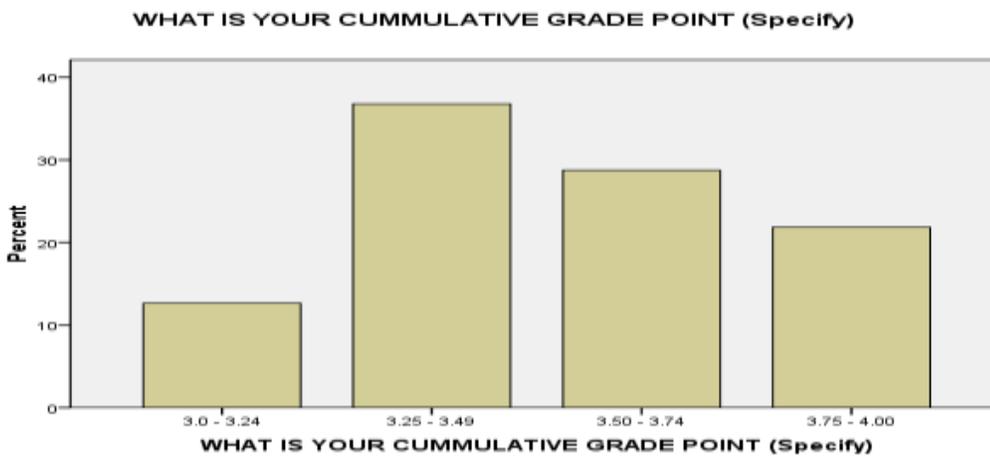
Figure 1.3: Bar Chart of Respondents Who Normally Bring Laptop to Class



RESPONDENTS WHO USUALLY BRING LAPTOPS TO CLASS

45% of the students agreed that they do usually bring laptops to class while 55% did not.

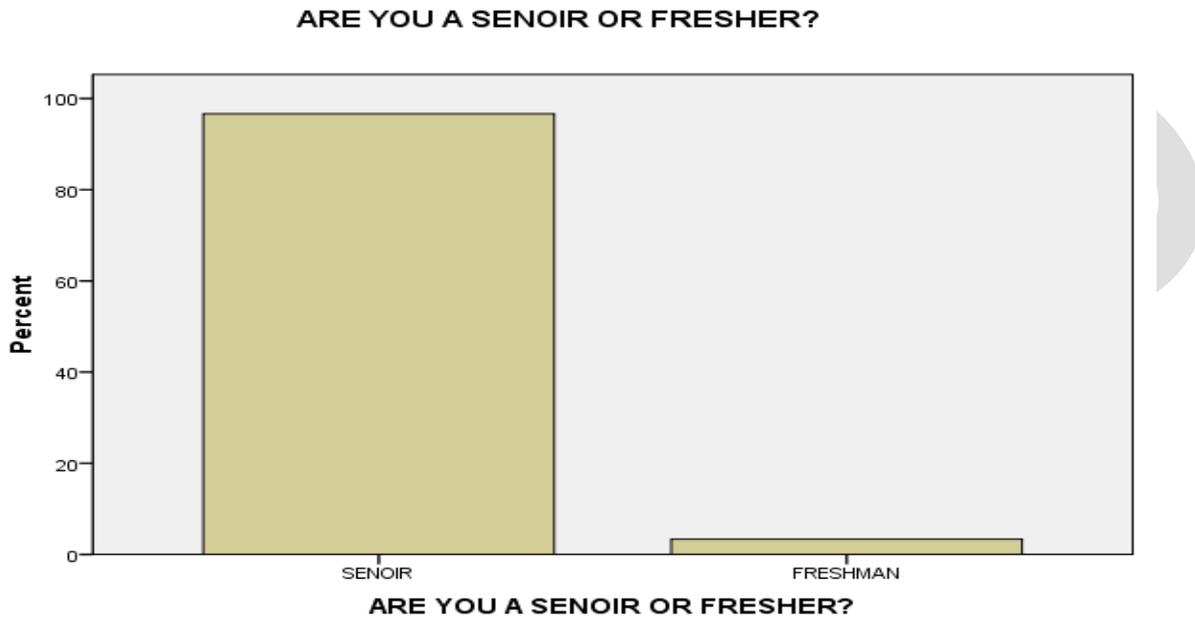
Figure 1. 3: Bar Chart of Cumulative Grade Points of Respondents



GRADE POINTS: 49% of the respondents were between cumulative grade points of 3.0-3.24 while 37% were between cumulative grade points of 3.25-3.49; 29% were between cumulative grade points of 3.50-3.74 and 22% were between cumulative grade points of 3.74-4.0.

SENIOR OR FRESHER STUDENTS RESPONDENT

Figure 1.4: Bar Chart of Senior or Fresher Students

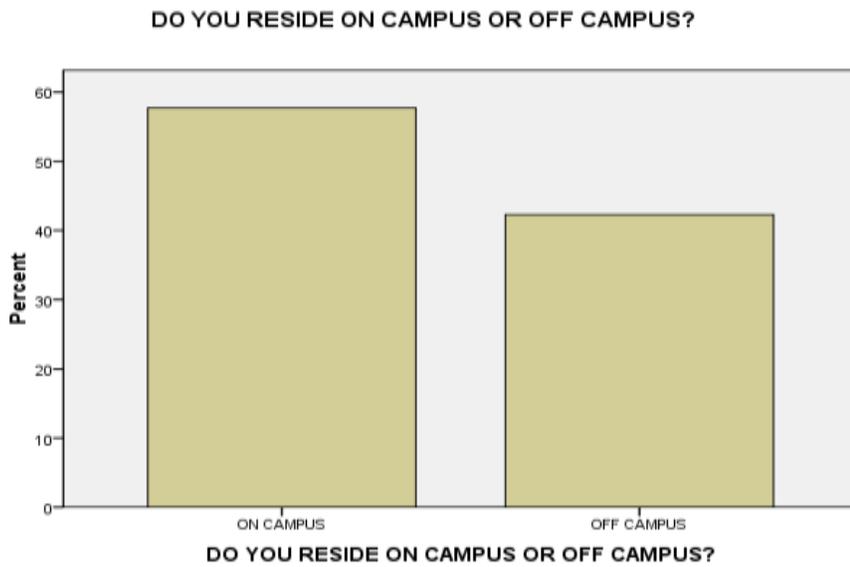


SENIOR OR FRESHER STUDENTS

7% of the respondents were senior students while the remaining 3.3% were fresher

RESPONDENTS WHO RESIDE EITHER ON CAMPUS OR OFF CAMPUS

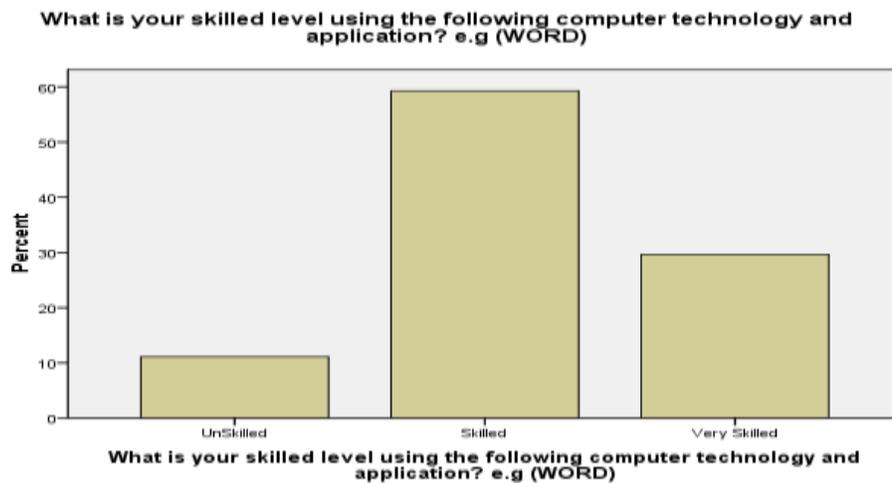
Figure 1.5: Bar Charts of Respondents who reside either on Campus or off Campus



STUDENTS WHO RESIDED ON CAMPUS OR OFF CAMPUS

According to the bar chart above 58% of the respondents resided on campus while 42% are off campus

Figure 4.6: Bar Chart for Knowledge of Computer Technology and Standard Software Application MS-Word

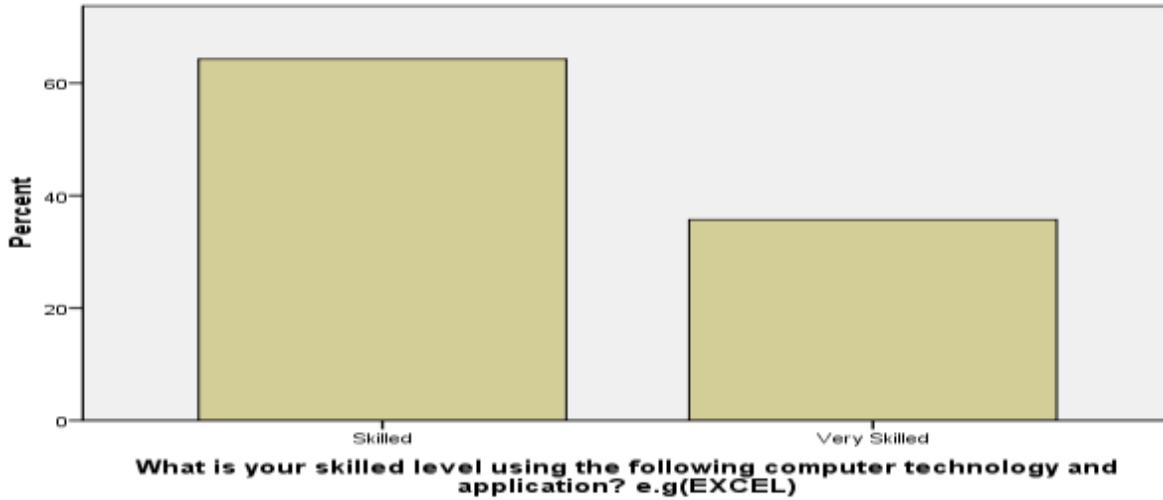


MICROSOFT WORD

From the above table and chart you can depict 11% of the students were unskilled in the use of Microsoft Word, 59% were skilled and 30% were very skilled respectively.

Figure 1.7: Bar chart for Knowledge of Computer Technology and Standard Application Software in Excel

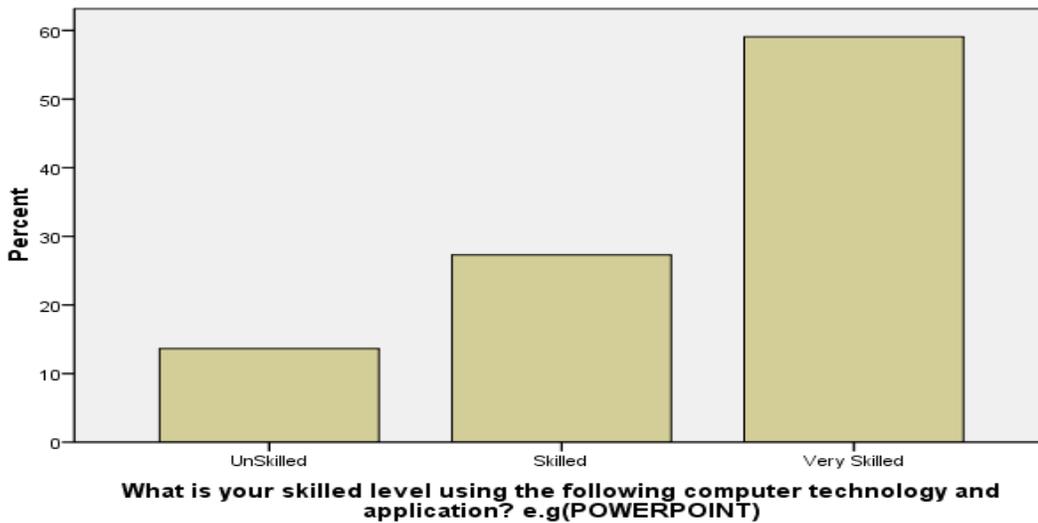
What is your skilled level using the following computer technology and application? e.g(EXCEL)



MICROSOFT EXCEL: 64% were skilled in Microsoft Excel and 36% were very skilled respectively.

Figure 1.8: Bar Chart for Computer Technology and Standard Application Software in MS-Power Point

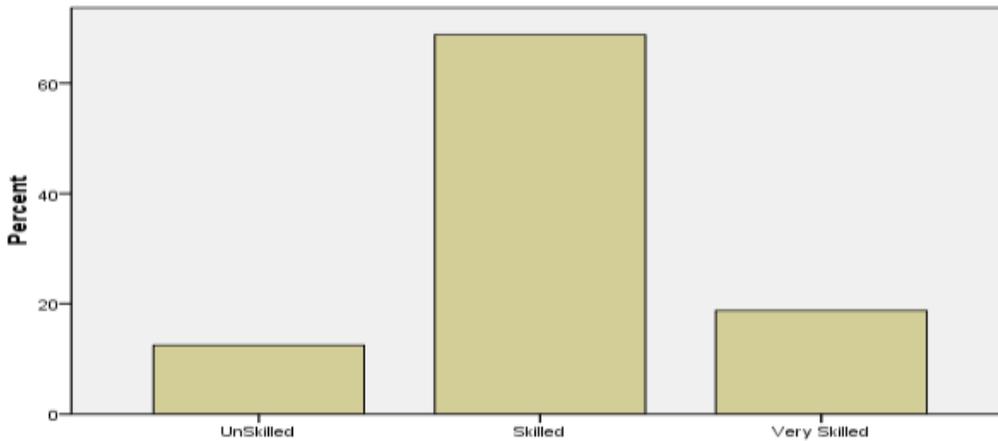
What is your skilled level using the following computer technology and application? e.g(POWERPOINT)



MICROSOFT POWER POINT: 14% were unskilled in Power Point, 27% were skilled while, 59% were very skilled in MS-Power Point.

Figure 1.9: Bar Chart for Computer Technology and Standard Application Software - Photoshop & Flash

What is your skilled level using the following computer technology and application? e.g(PHOTOSHOP, FLASH)

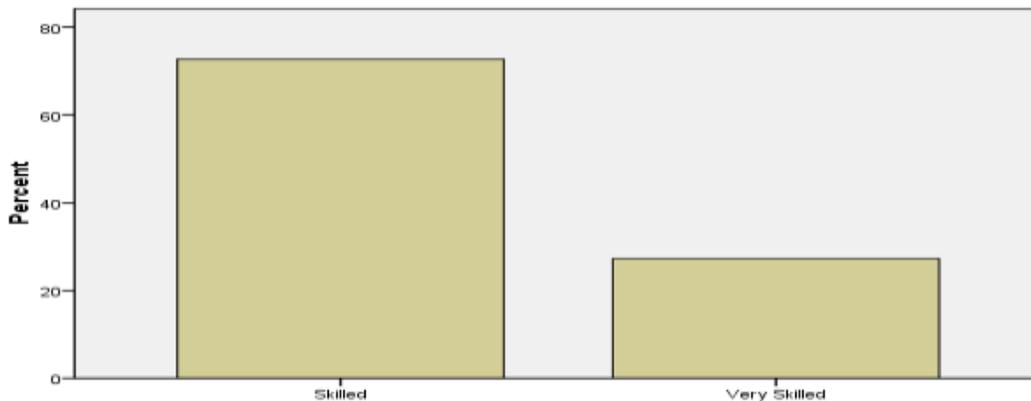


What is your skilled level using the following computer technology and application? e.g(PHOTOSHOP, FLASH)

PHOTOSHOP & FLASH: 13% of the students were unskilled in Photoshop and Flash while 69% were skilled and 19% were very skilled respectively.

Figure1.10: Bar Chart for Computer Technology and Standard Application Software -Creating Editing Video

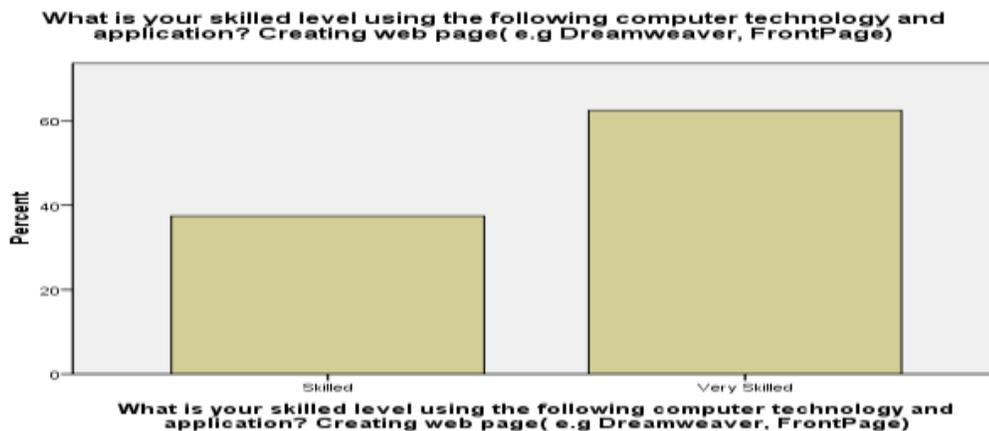
What is your skilled level using the following computer technology and application? e.g(Creating and editing video such as Dircetor)



What is your skilled level using the following computer technology and application? e.g(Creating and editing video such as Dircetor)

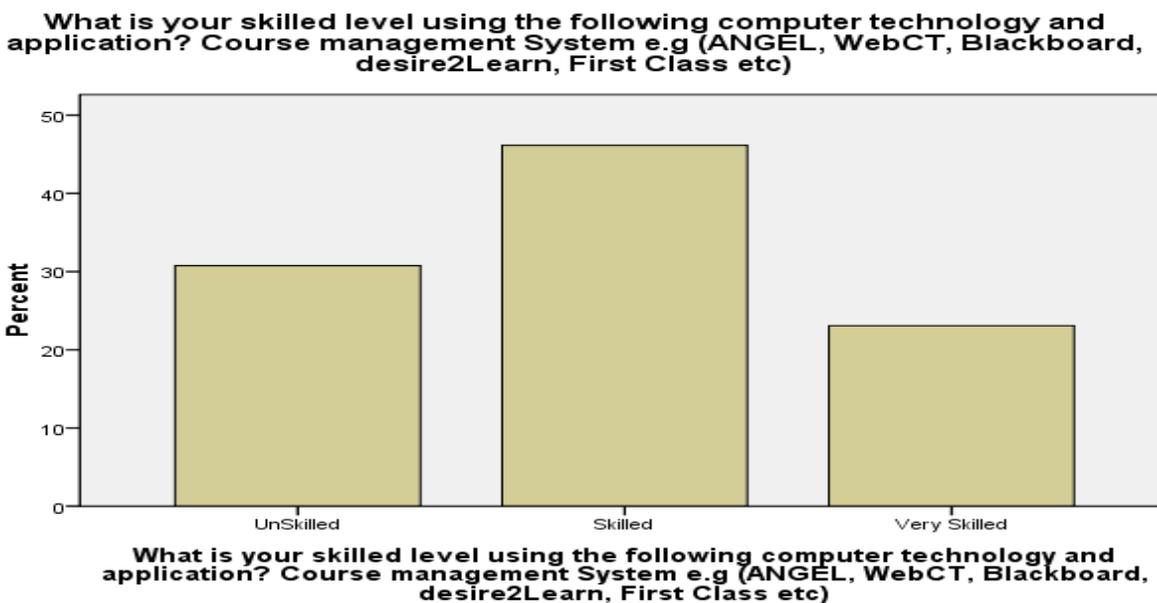
CREATING AND EDITING VIDEO: 73% of the students were skilled while 27% were very skilled in creating and editing Video.

Figure1.11 Bar Chart for Computer Technology and Standard Application Software - Creating Web Page



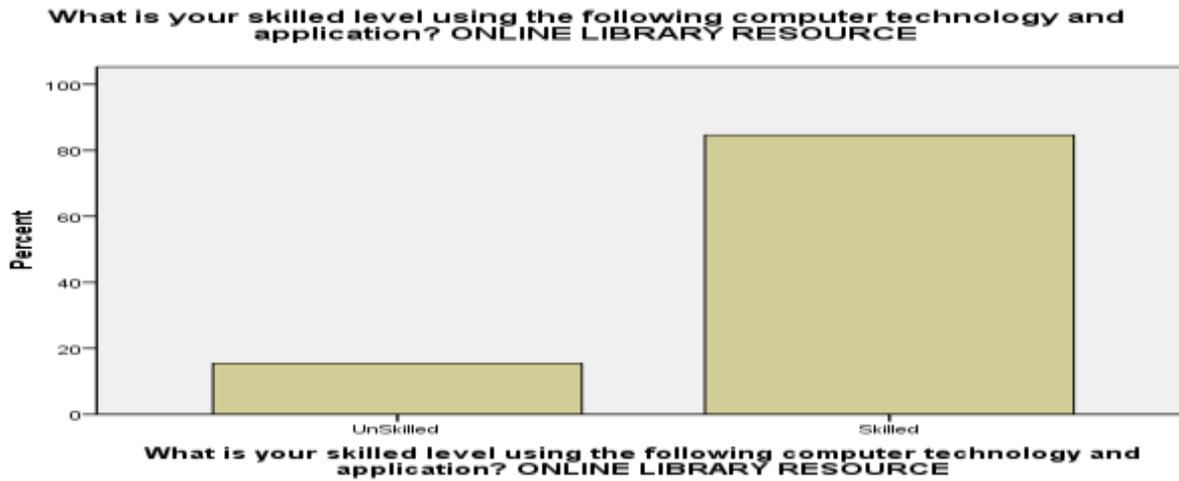
CREATING WEB PAGE: 38% of the respondents were skilled in creating Web Page while 63% were very skilled in creating Web Page.

Figure1.13: BAR CHART FOR COMPUTER TECHNOLOGY AND STANDARD APPLICATION SOFTWARE - COURSE MANAGEMENT



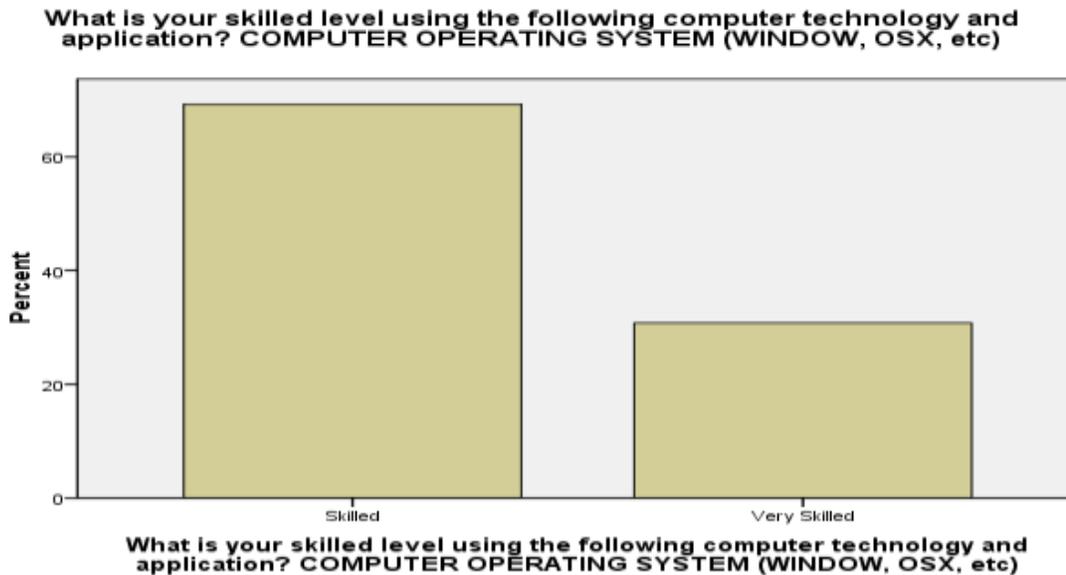
MANAGEMENT SYSTEM: 31% of the student were very unskilled in the use of management system while 46% were skilled and 23% very skilled in the used of management systems respectively.

Figure1.12 Bar Chart for Computer Technology and Standard Application Software - Online Library Resource



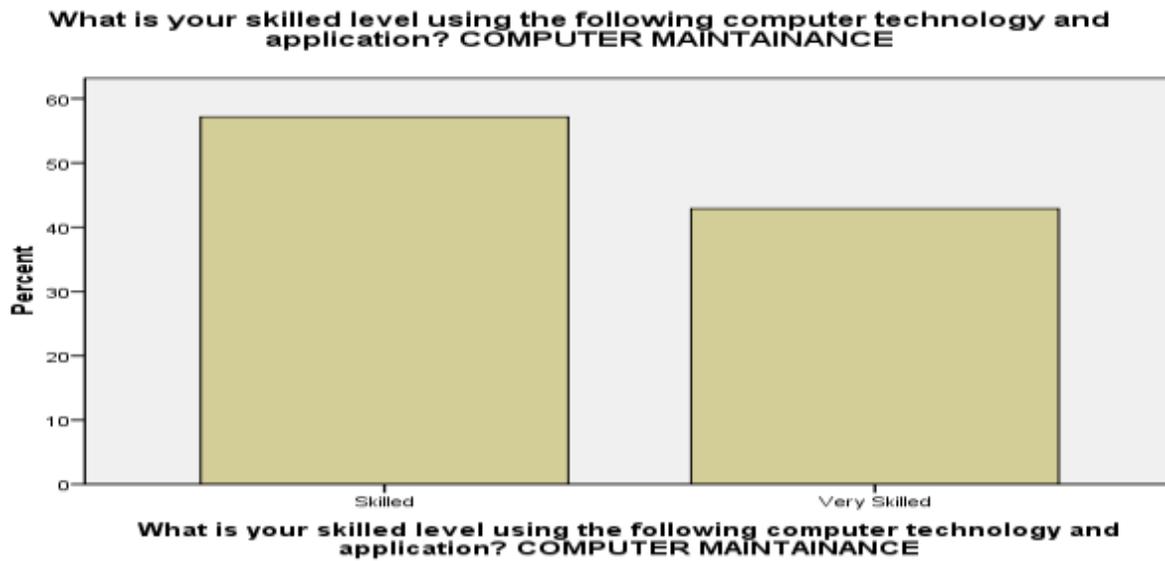
ONLINE LIBRARY RESOURCE: 15% of the students were unskilled in the use of Online Library Resource 85% were skilled.

Figure1.13: BAR CHART FOR COMPUTER TECHNOLOGY AND STANDARD APPLICATION SOFTWARE -COMPUTER OPERATING SYSTEM



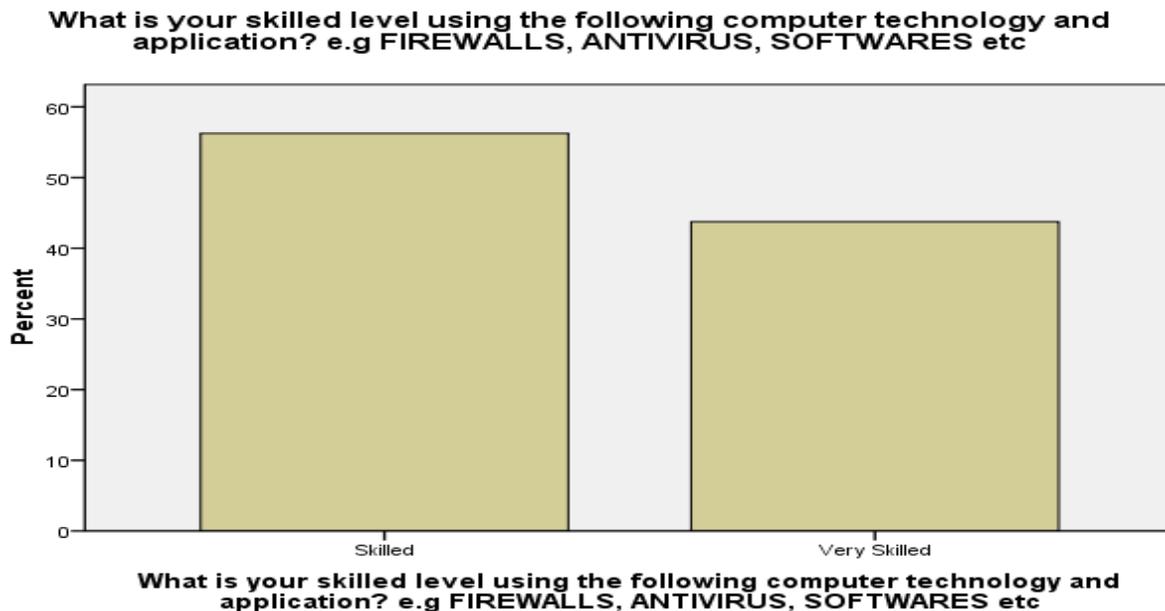
COMPUTER OPERATING SYSTEM: 69% were skilled in the use of Computer Operating System and 31% were very skilled in the use of Computer Operating System.

Figure1.14: BAR CHART FOR COMPUTER TECHNOLOGY AND STANDARD APPLICATION SOFTWARE - COMPUTER MAINTENANCE



COMPUTER MAINTENANCE: 57% were skilled in Computer maintenance and 43% very skilled respectively

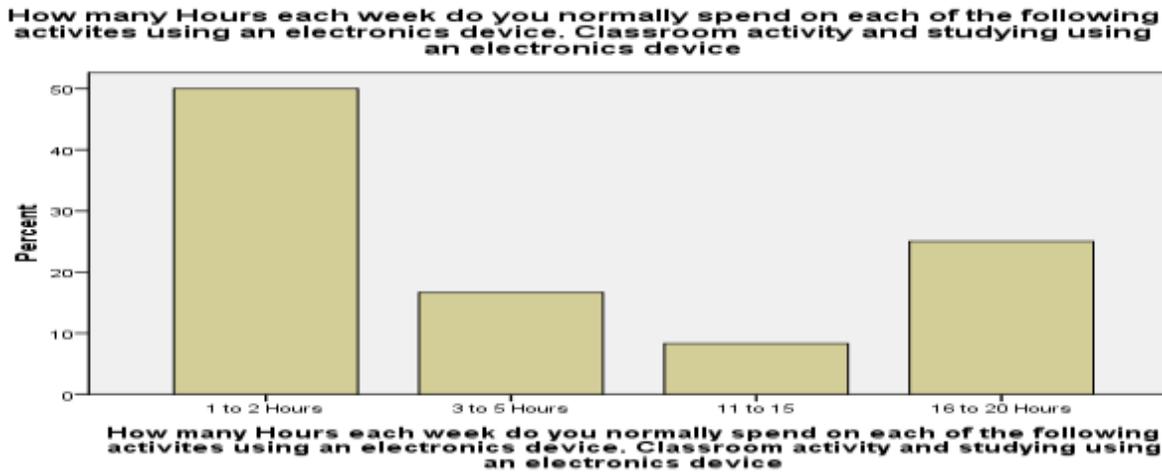
Figure1.15 BAR CHART FOR COMPUTER TECHNOLOGY AND STANDARD APPLICATION SOFTWARE-FIREWALLS & ANTIVIRUS SOFTWARES



FIREWALLS & ANTIVIRUS SOFTWARES: 56% of the students were skilled in the use of Firewalls & Antivirus Software ,while 48% were very skilled in the use Firewalls & Antivirus Software.

HOURS SPENT ON ACTIVITIES EACH WEEK USING ELECTRONIC DEVICES

Figure 1.16: BAR CHART OF HOURS SPENT EACH WEEK ON CLASSROOM ACTIVITY AND STUDING USING AN ELECTRONICS DEVICE

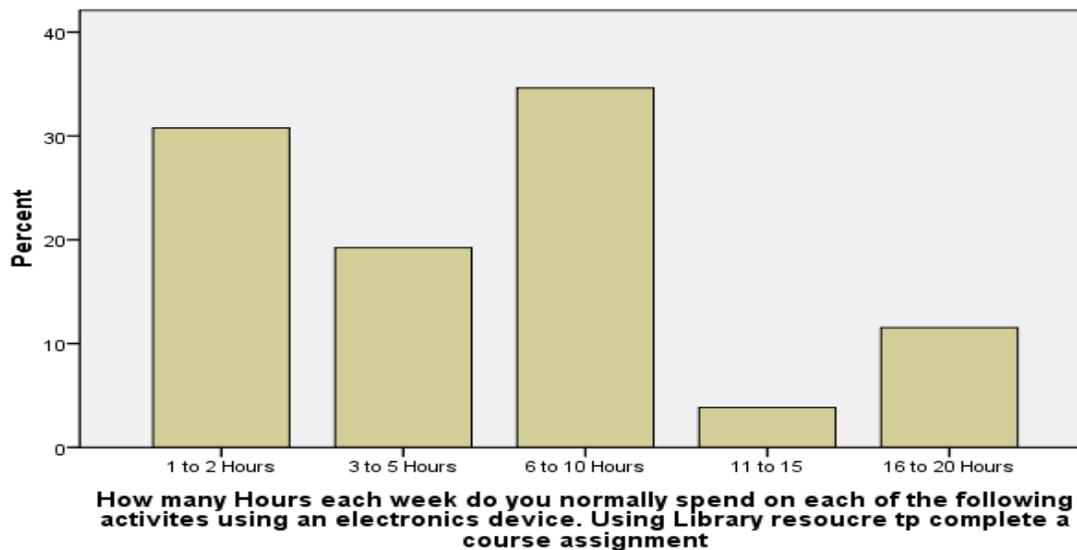


CLASSROOM ACTIVITY AND STUDYING USING ELECTRONICS DEVICES

From the above chart you can easily depict that 50% of the students each week in Njala University spent 1 to 2 hours on classroom activities and studying using electronic device; 17%, 3 to 5 hours; 1%, 11 to 15 hours and 3% ,16 to 20 hours respectively.

Figure 1.19: BAR CHART OF HOURS SPENT EACH WEEK USING LIBRARY RESOURCE TO COMPLETE ASSIGNMEN

How many Hours each week do you normally spend on each of the following activities using an electronics device. Using Library resource tp complete a course assignment

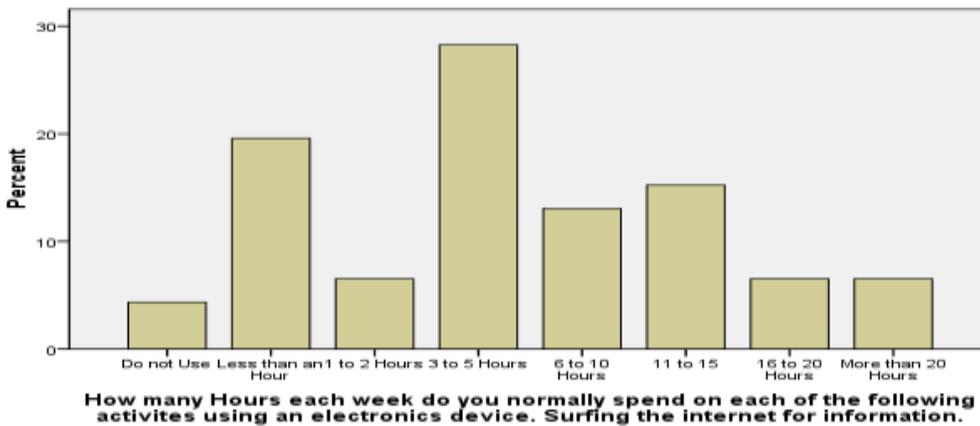


USING LIBRARY RESOURCE TO COMPLETE A COURSE ASSIGMENT

On library resource to complete a course assignment 31% spent 1 to 2 hours each week; 19% 3 to 5 hours; 35% 6 to 10 hours; 4% ,11 to 15 hours and 4% 16 to 20 hours respectively.

Figure1.20 BAR CHART OF HOURS SPENT EACH WEEK ON ACTIVITY BY SURFACING THE INTERNET FOR INFORMATION

How many Hours each week do you normally spend on each of the following activities using an electronics device. Surfing the internet for information.

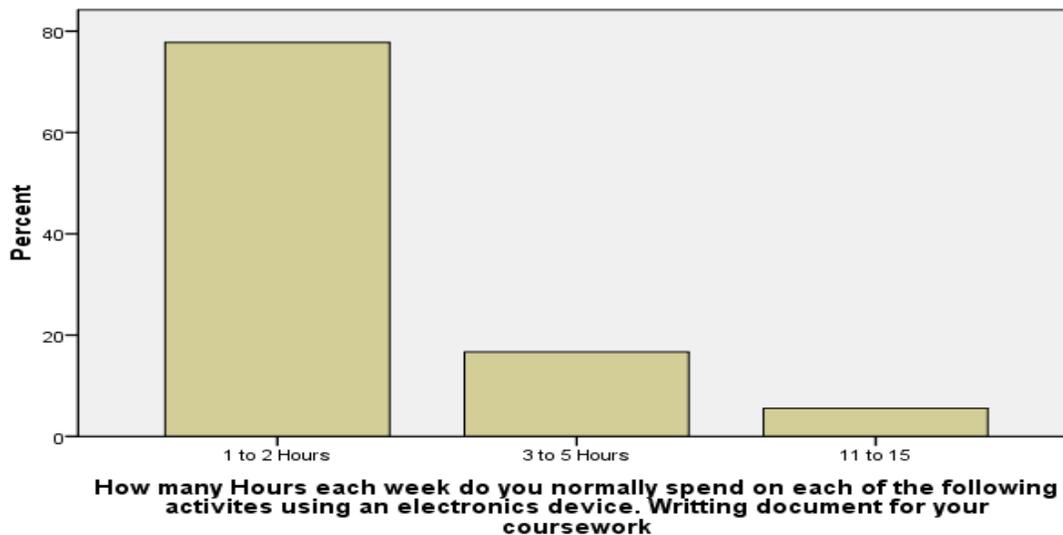


SURFACING THE INTERNET FOR INFORMATION

5% do not use the internet each week for information; 20% spent less than an hour; 7% 1 to 2 hours; 15% ,11 to 15 hours; 7% ,16 to 20 hours and 7% more than 20 hours respectively.

Figure1.21: BAR CHART OF HOURS SPENT EACH WEEK ON ACTIVITY BY WRITING DOCUMENT ON EACH COURSE WORK

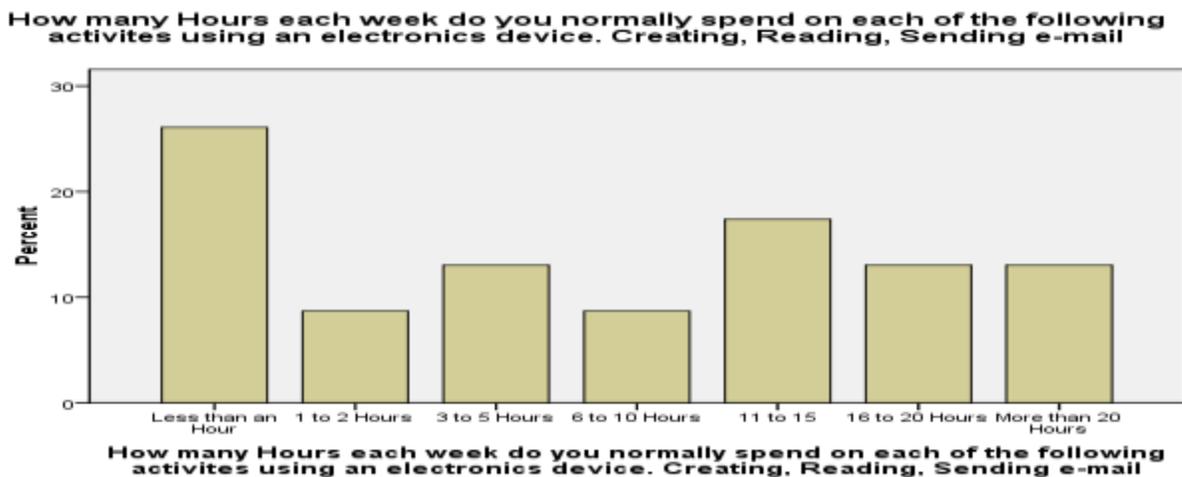
How many Hours each week do you normally spend on each of the following activities using an electronics device. Writing document for your coursework



WRITING DOCUMENT FOR COURSE WORK

78% of the respondents spent 1 to 2 hours in writing document for course work, while 17% spent 3 to 5 hours and 6% 11 to 15 hours per week respectively.

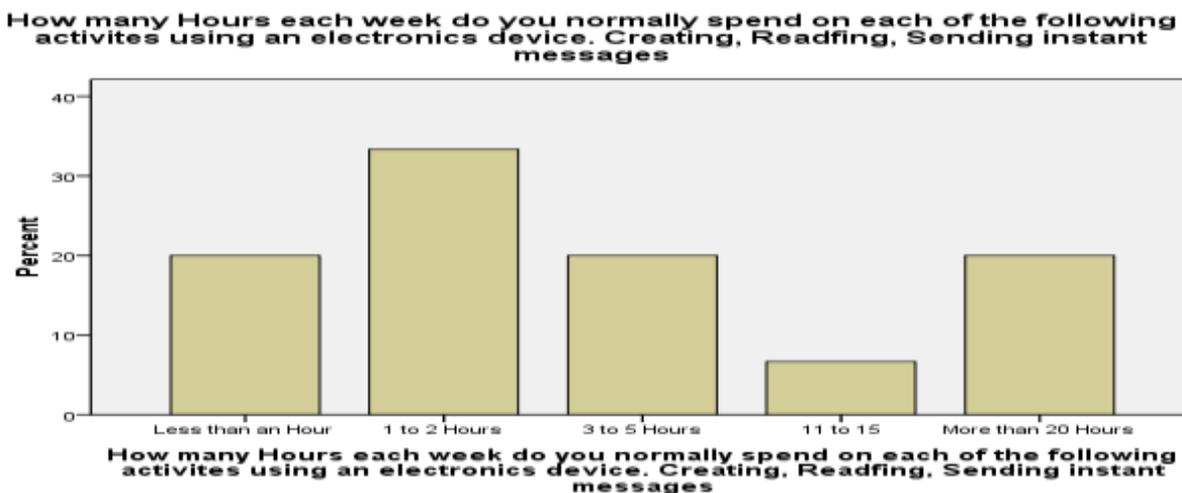
Figure 1.22: BAR CHART OF HOURS SPENT EACH WEEK ON ACTIVITY BY



CREATING, READING, SENDING e-MAIL

26% of the students spent less than one hour in creating, reading and sending e-mails in a week; 9% spent 1 to 2 hours; 13% 3 to 5 hours; 9%, 6 to 10 hours; 17%, 11 to 15 hours; 13% 16 to 20 hours and 13% more 20 hours in a week.

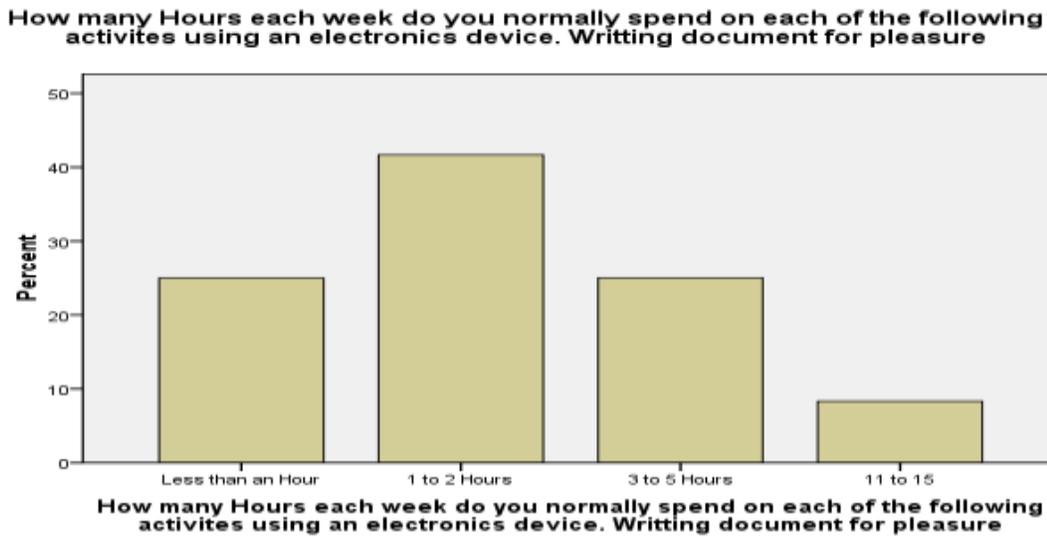
Figure 1.23: BAR CHART OF HOURS SPENT EACH WEEK ON ACTIVITY BY CREATING, READING AND SENDING INSTANT MESSAGE



CREATING READING AND SENDING INSTANT MESSAGE

20% spent less than one hour in creating, reading and sending instant message in a week; 33% 1 to 2 hours; 20% 3 to 5 hours; 7% 11 to 15 hours and 20% more than 20 hours in a week.

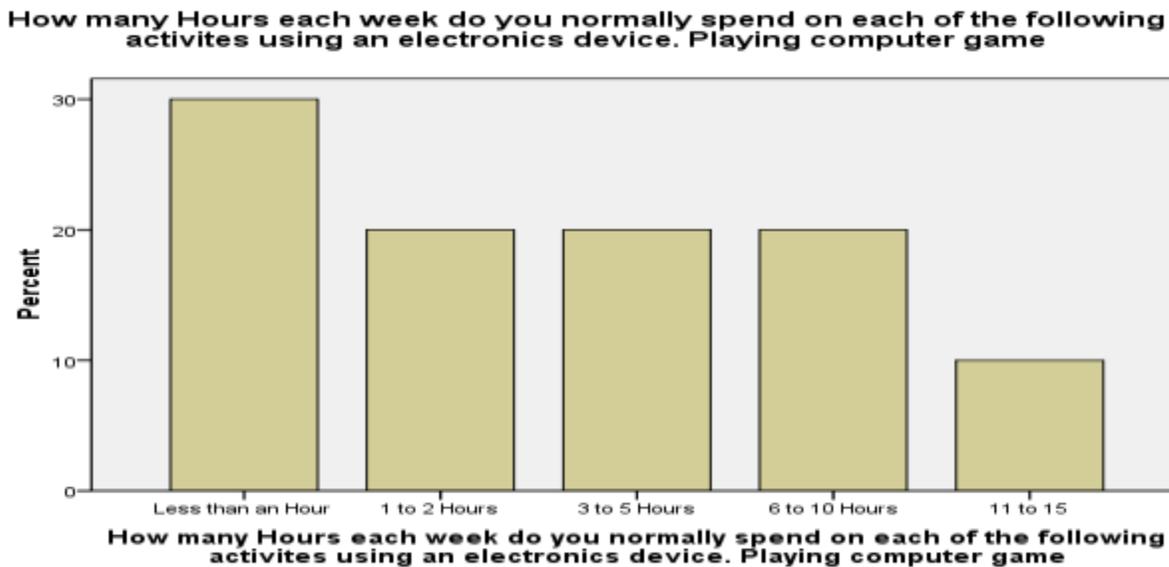
Figure 1.24: BAR CHART OF HOURS SPENT EACH WEEK ON ACTIVITY BY WRITING DOCUMENT FOR PLEASURE



WRITING DOCUMENT FOR PLEASURE

25% of the students spent less than an hour in writing document for pleasure in a week, while 42% 1 to 2 hours; 25% 3 to 5 hours and 8% 11 to 15 hours a week respectively.

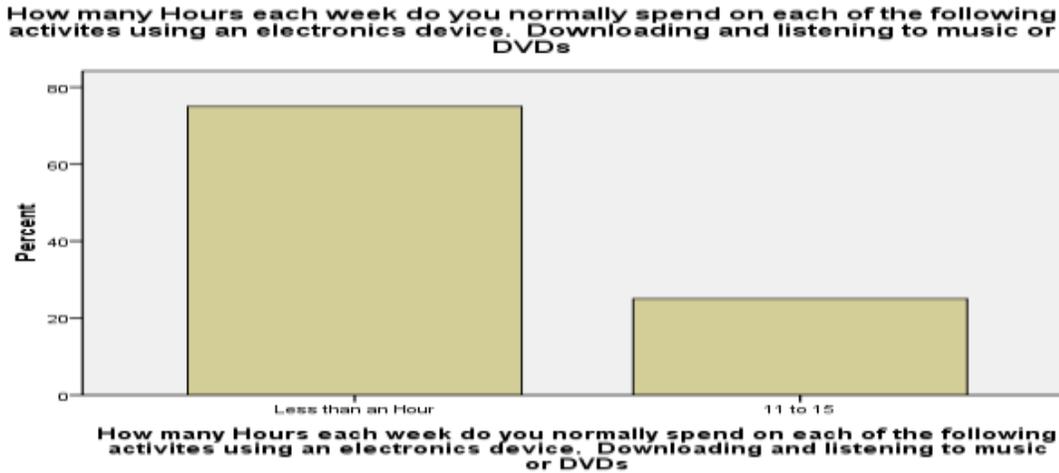
Figure 1.25: BAR CHART OF HOURS SPENT EACH WEEK ON ACTIVITY BY PLAYING COMPUTER GAME



PLAYING COMPUTER GAME

30% of the students spent less than an hour in playing computer game per week; 20% , 6 to 10 hours and 10% 11 to 15 hours a week playing computer games.

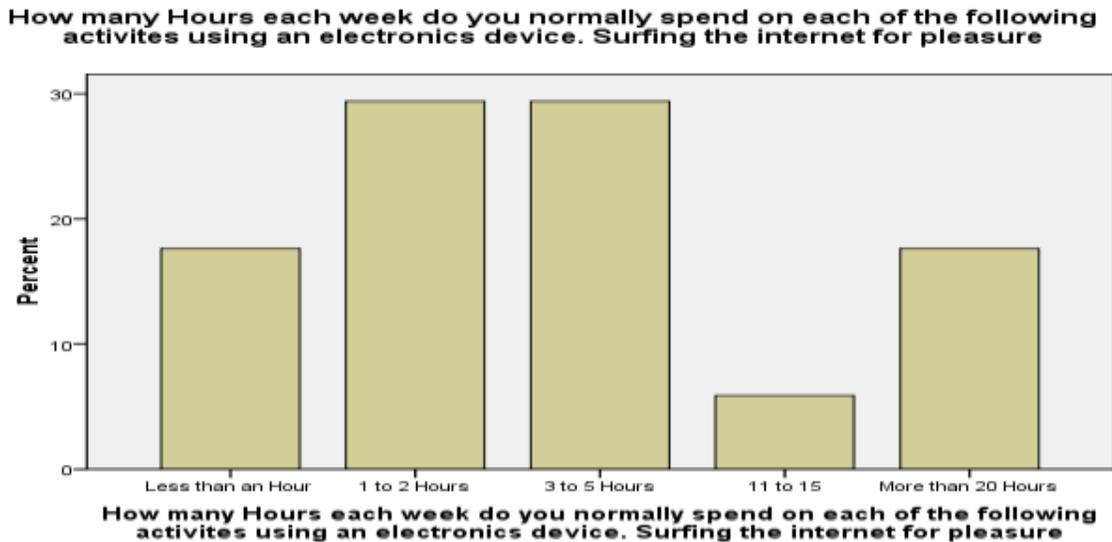
Figure1. 26: BAR CHART HOURS SPENT EACH WEEK ON ACTIVITY BY DOWNLOADING AND LISTERNING TO MUSICS OR DVDs



DOWNLOADING AND LISTERNING TO MUSIC OR DVDs

75% of the students spent less than one hour in down loading and listening to music or DVDs and 25% 11 to 15 hours a week.

Figure1.27: BAR CHART HOURS SPENT EACH WEEK ON ACTIVITY BY SURFACING THE INTERNET FOR PLEASURE

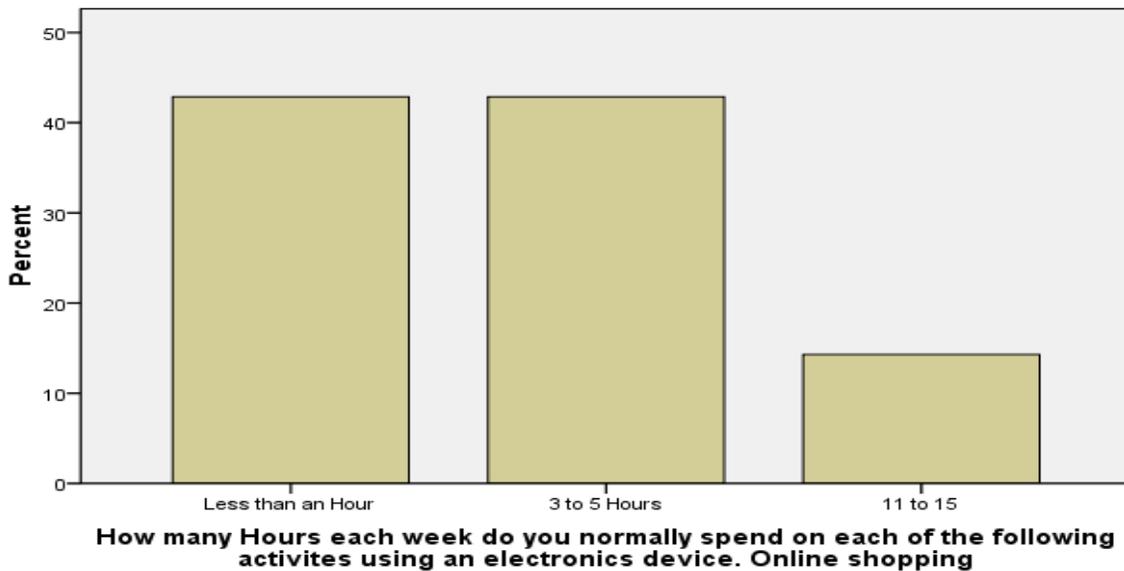


SURFACING INTERNET FOR PLEASURE

18% spent less than an hour in surfacing internet for pleasure in week 30% 1 to 2 hours; 29% 3 to 5 hours; 6% 11 to 15 hours and 18% more than 20 hours in a week.

Figure 1.28: BAR CART OF HOURS SPENT EACH WEEK ON ACTIVITY BY ONLINE SHOPING

How many Hours each week do you normally spend on each of the following activites using an electronics device. Online shopping

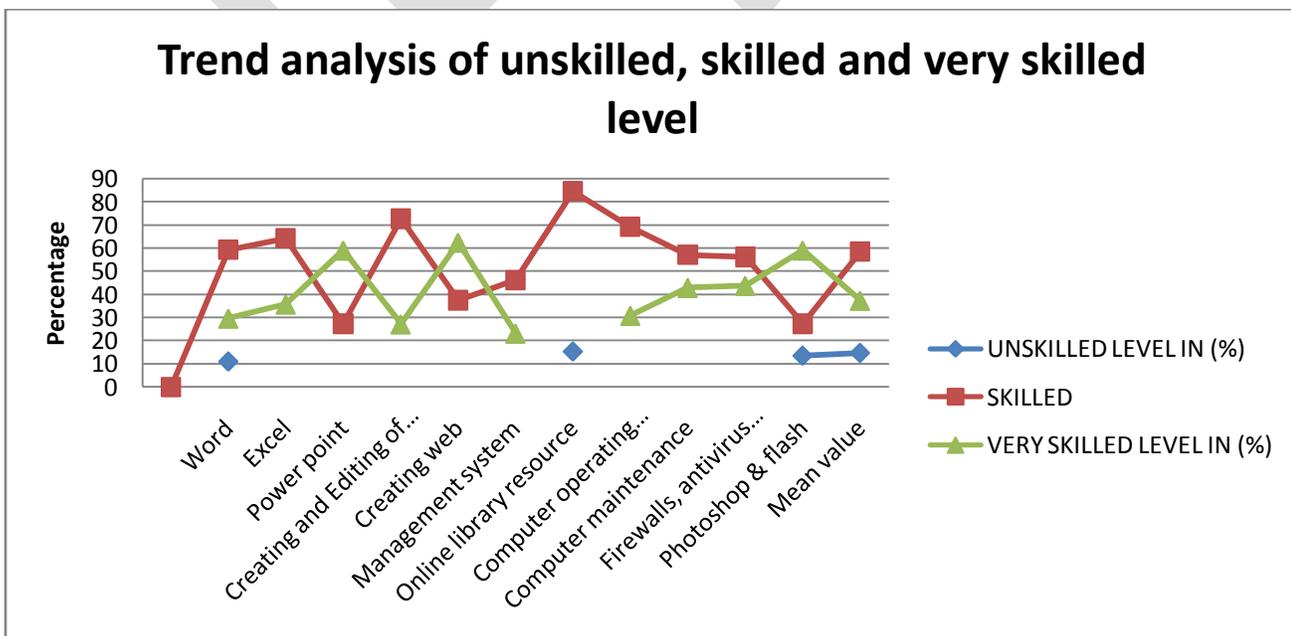


ONLINE SHOPING

41% spent less than an hour for online shopping in a week; 43% 3 to 5 hours; 14% 11 to 15% respectively.

TREND ANALYSIS OF SKILLED LEVEL USING COMPUTER TECHNOLOGY AND STANDARD APPLICATION SOFTWARE

Figure 1.29: TREND ANALYSIS OF SKILLED LEVEL USING COMPUTER TECHNOLOGY AND STANDARD APPLICATION SOFTWARE



TREND ANALYSIS

59% of the students were skilled in using computer technology and its application, while 37% were very skilled but 15% remain unskilled.

SUMMARY, CONCLUSION AND RECOMMENDATION

SUMMARY OF FINDINGS

Nearly forty five percent(45%) of the students agreed that they normally bring laptop to class while fifty five percent(55%) did not and forty five percent(45%) of the students were between cumulative grade point of 3.0-3.24 while thirty seven percent(37%) were between cumulative grade points of 3.25-3.49; twenty nine percent(29%) were between cumulative grade point of 3.50-3.74 and twenty two percent(20) were between cumulative grade points of 3.74-4.0.

Eleven percent (11%) of the students were unskilled in Microsoft Word, fifty nine percent(59%) were skilled and thirty percent(30%) were very skilled respectively. Sixty four percent (64%) were skilled in Microsoft Excel and thirty six percent (30%) were very skilled respectively.

Fourteen percent (14%) were unskilled in Power Point; twenty seven percent (27%) were skilled while, fifty nine percent (59%) were very skilled in MS-Power Point. Thirteen percent (13%) of the students were unskilled in Photoshop and Flash while sixty nine percent (69%) were skilled and nineteen (19%) were very skilled respectively. Seventy three percent (73%) of the students were skilled while twenty seven percent (27%) were very skilled in creating and editing Video. Thirty eight percent (38%) of the respondents were skilled in creating Web Page while, sixty three percent(63%) were very skill in creating Web Page. Thirty one percent (31%) of the student were vey unskilled in the use of management system while forty six percent (46%) were skilled and twenty three percent (23%) very skilled in the used of manage system respectively. Sixteen (16%) of the students were unskilled in the use of Online Library Resource eighty five (85%) were skilled. Sixty nine percent (69%) were skilled in the use of Computer Operating System and thirty one percent (31%) were very skilled in the use of Computer Operating System. Fifty seven percent (57%) were skilled in Computer maintenance and forty three percent (43%) very skilled respectively. Fifty six percent (56%) of the students were skilled in the use of Firewalls, Antivirus Software while forty eighty percent (48%) were very skilled in the use Firewalls & Antivirus Software.

Nearly fifty percent (50%) of the students each week in Njala University spent 1 to 2 hours on classroom activities and studying using electronic device; seventeen percent (17%) 3 to 5 hours; one percent (1%), 11 to 15 hours and three percent (3%) 16 to 20 hours respectively. On library resource to complete a course assignment thirty one percent (31%) spent 1 to 2 hours each week; nineteen percent (19%) 3 to 5 hours; thirty five (35%) 6 to 10 hours; four percent (4%); 11 to 15 hours and four percent(4%) 16 to 20 hours respectively.

Four percent (4%) used the internet each week for information; twenty percent (20%) spent less than an hour; seven percent (7%) 1 to 2 hours; fifteen percent (15%) 11 to 15 hours; seven percent (7%) 16 to 20 hours and seven percent (7%) more than 20 hours respectively. Seventy eight percent (78%) of the students in Njala University spent 1 to 2 hours in writing document for course work, while seventeen(17%) spent 3 to 5 hours and six percent (6%) 11 to 15 hours per week respectively. Twenty six percent (26%) of the student spent less than one hour in creating, reading and sending e-mails in a week; nine percent (9%) spent 1 to 2 hours; thirteen

percent (13%) 3 to 5 hours; nine percent (9%) 6 to 10 hours; seventeen percent (17%) 11 to 15 hours; thirteen (13%) 16 to 20 hours and thirteen percent (13%) more than 20 hours in a week.

Twenty percent (20%) spent less than one hour in creating, reading and sending instant message in a week; thirty three percent (33%) 1 to 2 hours; Twenty percent (20%) 3 to 5 hours; seven percent (7%) 11 to 15 hours and twenty percent (20%) more than 20 hours in a week. Twenty five percent (25%) of the students spent less than an hour in writing document for pleasure in a week, while forty two percent (42%) 1 to 2 hours; twenty five percent (25%) 3 to 5 hours and eight percent (8%); 11 to 15 hours a week respectively. Thirty percent (30%) of the students spent less than an hour in playing computer game per week; twenty percent (20%); 6 to 10 hours and ten percent (10%); 11 to 15 hours a week playing computer games.

Seventy five percent (75%) of the students spent less than one hour in down loading and listening to music or DVDs and twenty five percent (25%) 11 to 15 hours a week.

Nearly eighteen percent (18%) spent less than an hour in surfacing internet for pleasure in week twenty nine percent (29%) 1 to 2 hours; twenty nine percent (29%) 3 to 5 hours; six percent (6%); 11 to 15 hours and eighteen percent (18%); more than 20 hours in a week.

Seventy eight percent (78%) of the students spent 1 to 2 hours in writing document for course work, while seventeen percent (17%) spent 3 to 5 hours and six percent (6%); 11 to 15 hours per week respectively. Forty percent (40%) spent less than an hour for online shopping in a week; forty three percent (43%) 3 to 5 hours; fourteen percent (14%) 11 to 15% respectively.

CONCLUSIONS

Based on the findings the following conclusions are made:

- ❖ Nearly fifty nine percent (59%) of the students were skilled in using computer technology and its applications
- ❖ Thirty seven percent (37%) were very skilled in using computer technology and its applications
- ❖ Fifteen percent (15%) remained to be unskilled in using computer technology and its applications
- ❖ Fifty percent (50%) of the students each week in Njala University spent 1 to 2 hours on classroom activities and studying using electronic device; seventeen percent (17%); 3 to 5 hours; one percent (1%); 11 to 15 hours and three percent (3%); 16 to 20 hours respectively
- ❖ On library resource to complete a course assignment thirty one percent (31%) spent 1 to 2 hours each week ; nineteen percent (19%) 3 to 5 hours ;thirty five percent (35%); 6 to 10 hours; four percent (4%); 11 to 15 hours and four percent (4%) 16 to 20 hours respectively.
- ❖ Four percent (4%) did not use the internet each week for information; twenty percent (20%) spent less than an hour; seven percent (7%); 1 to 2 hours; fifteen percent (15%) 11 to 15 hours; seven percent (7%); 16 to 20 hours and seven percent (7%) more than 20 hours respectively.

- ❖ Nearly seventy eight percent (78%) of the students in Njala University spent 1 to 2 hours in writing document for course work, while seventeen percent (17%) spent 3 to 5 hours and six percent (6%); 11 to 15 hours per week respectively.
- ❖ Twenty six percent (26%) of the student spent less than one hour in creating, reading and sending e-mails in a week; nine percent (9%) spent 1 to 2 hours; thirteen percent (13%) 3 to 5 hours; nine percent (9%) ; 6 to 10 hours; seventeen percent (17%); 11 to 15 hours; thirteen percent (13%); 16 to 20 hours and thirteen percent (13%) more than 20 hours in a week.
- ❖ Twenty percent (20%) spent less than one hour in creating, reading and sending instant message in a week; thirty three (33%); 1 to 2 hours; twenty percent (20%); 3 to 5 hours; seven percent (7%); 11to 15 hours and twenty percent (20%) more than 20 hours in a week.
- ❖ Twenty percent (25%) of the students spent less than an hour in writing document for pleasure in a week, while forty two percent (42%) 1 to 2 hours; twenty five percent (25%); 3 to 5 hours and eight percent (8%) 11 to 15 hours a week respectively.
- ❖ Thirty percent (30%) of the students spent less than an hour in playing computer game per week; twenty percent (20%); 6 to 10 hours and ten percent (10%) 11 to 15 hours a week playing computer games.
- ❖ Seventy five percent (75%) of the students spent less than one hour in down loading and listening to music or DVDs and twenty five percent (25%); 11 to 15 hours a week.
- ❖ Eighteen percent (18%) spent less than an hour in surfacing internet for pleasure in week twenty nine percent (29%) 1 to 2 hours; twenty nine percent (29%) 3 to 5 hours; six percent (6%) 11 to 15 hours and eighteen percent (18%) more than 20 hours in a week.
- ❖ Seventy eight percent (78%) of the students spent 1 to 2 hours in writing document for course work, while seventeen percent (17%) spent 3 to 5 hours and six percent (6%) 11 to 15 hours per week respectively. Forty one percent (41%) spent less than an hour for online shopping in a week; forty three percent (43%) 3 to 5 hours; fourteen percent (14%) 11 to 15% respectively.

This clearly manifests that the impact of information technology use skills on Njala University was above average and was a progressive for the past years. This is clearly justified by the number of time students allocated to using computer applications. Almost computer technology and its application affect all cadres of their academic activities of students. Time spent in using internet services was relatively low. This may be as a result of students having no free access to internet services or the capacity of the service not enough to accommodate the number of students that have right of access.

RECOMMENDATIONS

Based on the research findings the following recommendations would be made in order for IT to have more and effective impact on students at higher educational institutions:

- ❖ School of technology needs to invest in technology so that the systems are always available, usable and secure. This will help to adopt new technologies that can be utilized for greater access to information, improve and automate business process for greater and also improve the quality and accessibility of teaching, learning and research.
- ❖ University needs to consider technology as a tool that will help student plan to think more strategically, do things more efficiently and wisely, and reduce the overall effort and cost of learning materials e.g. Textbooks etc for higher education.
- ❖ IT as a Commodity, such as networks, telephone, wireless, email, antennas, data center server support and, in some cases, desktop should be centrally managed in close coordination with college IT managers. This would allow these managers to focus on college-specific applications that would help faculty adopt new technologies.
- ❖ Less financial burden on students and IT facilities that will accommodate more students.
- ❖ Schools/Faculty needs to be informed about the new technologies and current IT services available for their use. Faculty is the change agents. This can be accomplished through the active involvement of the Technology Assisted Curriculum Center (TACC), Media Solutions, Instructional Media Services and other on-site local college support groups.
- ❖ University authorities to embrace technology as a tool that will help to think more strategically to do things more efficiently and wisely and reduce the overall cost of higher education.
- ❖ University authorities to strengthened academic staff. The strength of universities is the ability of their staff to apply analytical skills to problems and issues in the world. Universities to apply their analytical skills to their own practice, that is, an expanded research.
- ❖ Stimulate participation in the university centralized projects by reducing the demanding administrative requirements and bureaucracy associated with the participation in the IT programme.

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