

# The use of internet in enhancing student's academic studies: A case study at adamawa state college of agriculture (Ascoa) ganye

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**Abstract:** The adaptation of the Information Communication Technology (ICT) is growing across the state and the entire country. This study examines the use of the internet in enhancing studies in Adamawa State College of Agriculture (ASCOA) Ganye. The use of the internet is increasingly becoming an expectation for higher education students. In this paper, a range of case studies are described which illustrate methods of engaged students with technology enhanced learning and improve academic studies and students satisfaction. The sample was taken from five (5) departments in Adamawa State College of Agriculture namely, Animal Health Production (AHP), Agricultural Extension (AGT), Computer Science (CS), Agricultural Engineering technology (AET), and Forestry Technology (FOT). The aim of the study is to examine the Bio-data characteristics of the internet users, the information on users of internet during studies and the effects of the internet. A sampling technique was used to select 101 students from Animal Health Production (AHP) Department, 66 students from Agricultural Extension (AGT) Department and 36 students from Computer Science (CS) Department; totaling 266 students. A survey questionnaire was employed to determine the use of internet, the researcher analysed the data collected using descriptive, percentages, frequency and influential statistics. The study shows that 78.2% of the students were between the ages of 25 – 29 years 13.2% (30 – 34 years), and only 8.6% were between the age of 18 – 24 years. 81.6% of the students were single while 24.8% were female. The finding also shows that 80.8% download material (e-book) from the internet, 89.5% got an e-mail account (address), 273 of the respondents across the department accept that the introduction of a course called GNS 211 Computer Appreciation makes students to have interest of surfing the internet, The first result of the chi-square shows that there is a significant relationship between the users of internet (respondents) and those who got e-mail account (address) at (chi-square = 3.898<sup>a</sup>, p = 0.297). The second result of the chi-square shows that there is a significant relationship between the departments and students who have interest in surfing the internet at (chi-square = 7.423<sup>a</sup>, p = 0.115). Finally, students were satisfied with the service of internet café as library is neither networked nor connected to the internet; students patronize the cyber café extension close to their lecture hall (school area).

## I. INTRODUCTION

Information and Communication Technology (ICT) is a field encompassing computers, software, communications equipment and the services associated with them, it include satellite communications. The need to share information and resources among different users, who may be located in geographical dispersed areas, gave rise to computer networking. The invention of the internet further allowed people to communicate with anyone everywhere in the world, irrespective of location. Computer technology has become an integral part of instruction at the University Colleges, and Polytechnics education. Some instructors have enthusiastically adopted technological innovations in their classroom (Craig and Amernic, 2006), while others have resisted the trend (Stewart, 2001). So, the debate on the

importance of using computer technology in developing the educational process remains as uncertain as it is unsettling (Watson et al, 2007), which attract more attention as such technology provides several advantages on traditional education and has the potential to enhance teaching and learning (Amare, 2006). The rapid development in the field of Telecommunications and Information Technology have resulted in the convergence of information technology and Communications and resulted in the terminology, Information Communication Technology (ICT).

Information Communication Technology (ICT) provides high speed connection for internet telephony, radio and TV broadcasting, and have changed lifestyle around the world. It has also led

into the creation of ICT based industries, internet café, etc.

The training of competent personal that would fit into these portions requires adequate and free access to well organized sources of information (Adegboro, 2000).

This paper intends to find out how students in Adamawa State College of Agriculture Ganye make use of resources in their institution café and benefits of internet café.

Information technology such as computers, multimedia, software, DVDs and CD-ROMs are bringing unprecedented abilities to academic libraries in providing services and resources to the academic community (Mantoya, 2004). Over the past few years, the web has had the speed of transmission. The problems with the web though, are that there is no real organization of information like that in libraries. New means to deliver information over the web places a challenge to academic libraries (internet) in terms helping students make sense of information found on websites. There is steady increase in computer technology in various aspects of life. Institutions were not isolated from such development, as technology enjoys several advantages making it an ideal method to be used and enhancing in (Goffe and Sosin, 2005; Watson et al, 2007).

Marriott et al (2004) studied the use of Information and Communication Technology (ICT) by students at two UK Universities and their views regarding internet use in their programmes. The results showed a significant increase in internet and e-mail usage over the period of the study; use of ICT differed depending on the institution studied, and makes reported higher word processing, spreadsheet, general ledger and overall computer use. Oni-Orisan (1987) observed that no system of education is complete without well-equipped libraries with services operationalized either directly through contact with students (readers' service) or indirectly through activities carried out "behind the sense" (technical services) according to Nwalo (2000).

## **II. MATERIALS AND METHOD**

### **THE STUDY AREA**

The study was carried out in Ganye Local Government area, located in the Southern part of Adamawa State (Longitude 12<sup>0</sup>N, Latitude 09<sup>0</sup>E). It is bounded by Jada to the North, Mayo-Belwa and Taraba State to be West, Toundou to the South and to the East of Cameroun Republic (Adebayo, 1999).

The Adamawa State College of Agriculture (ASCOA), Ganye was established in 1992 at Mubi temporary site and finally relocated to Ganye Local Government in the year 2008.

Now the institution is admitting the students to pursue various programmes leading to the award of National Diploma (ND) in Animal Health and Production (AHP), Agricultural Engineering Technology (AET), Forestry Technology (FOT), Agricultural Extension (AGT) and Computer Science (CS) etc.

As soon as the College relocated to Ganye, it was connected to the internet (cyber café). Some argued that today's students, surrounded by digital technology since infancy, are fundamentally different from previous generations (McHale, 2005) and are no longer the people our educational system was designed to teach (Prensky, 2001).

Many different terms have been used to describe without students need, such as digital literacy, technological literacy and 21<sup>st</sup> century skills, education leaders, nationally and internally, are beginning to come together around a new common definition of what students need to know, Information and Communication Technology (ICT) literacy reflects the need for students to develop learning skills that enable them to think critically, analyze information communicate, collaborate and problem solve, and the essential role that technology plays in realizing these learning skills in today's knowledge-based society.

Various technologies deliver different kinds of content and serve different purposes in the classroom. For example, word processing and e-mail promote communication skills; database and spreadsheet programs promote organizational skills; and modeling software promotes the understanding of science and mathematics concepts. It is important to consider how these electronic technologies differ and what characteristics make them important as vehicles for education (Beeker, 1994).

The wide adoption of internet and computers in classrooms had changed learning and instruction in all subject areas (James & Lamb, 2000; Weaver, 2000).

Research on the influence of classroom computer use on student achievement has reported no influence or negative influence of using computers for instructional purpose on learning outcomes of mathematics and reading (Agrist & Lavy, 2002; Rouse & Krueger, 2004). Other studies about the effectiveness of computer use for instruction had found positive relationships between computers use

and students' academic achievements (Fuchs & Woessmann, 2004; Salerno, 1995).

### III. OBJECTIVES OF THE ADAMAWA STATE COLLEGE OF AGRICULTURE (ASCOA) GANYE CYBER CAFÉ

At digital age, most institutions are connected to the internet or have plans to get connected soon. These make things easier for student studies. As the college is connected to the internet, most students have access to the internet and e-mail. Since the internet is connected, the researcher want to find out how students are making use of the internet resources available.

The cyber café has the following objectives:

- i) To maintain information available across the world
- ii) To give the user-oriented service to the college
- iii) To enhance real time interaction
- iv) To provide rapid communication
- v) It enhance academic research
- vi) It provide electronic commerce
- vii) It provide printing and photocopying of materials
- viii) To provide e-registration
- ix) To access social networks.

### RESEARCH METHODOLOGY

This research uses the method of case study, supplemented with questionnaires to gather information from students on the use of internet.

#### 1. Case Study

The study "case study" is defined as an examination of phenomenon in its natural setting employing multiple methods of data collection or gather information from one or a few entities e.g. people, groups or organizations (Collis & Hussey, 2003). Benbasat (1984), Bonoma (1985), Kaplan and Ducchon (1988), stone (1978), and Yin (1984). The choice of case study in this research is based both on its own nature as well as the specific attributes of the research. Another important reason for employing case studies in this research is that it provides a basis for the closer integration of theory and practice. Questionnaire was administered to students, the study adopts simple questionnaire approach. The method were chosen to allow the researchers to reach out to considerable numbers of the students and sample from the entire population of students who are regular internet users of the College of Agriculture Ganye. A purposive sampling technique was embarked upon to select: 101 students from Animal Health Production (AHP) Department  
66 students from Agricultural Extension (AGT) Department

36 students from Computer Science (CS) Department

16 students from Agricultural Engineering Technology (AET) Department

47 students from Forestry Technology (FOT) Department

This gave a total of 266 students.

#### 2. Survey Questionnaire

A survey questionnaire captioned "the use of internet in enhancing students academic studies" developed by the researcher was used. The reliability of the questionnaire was determined via chi-square test. This indicates that the questionnaire is highly reliable and can be adequately help to achieve the objectives of the study. The survey questionnaire included items to establish the benefits (services) of using the internet café during the academic studies.

#### SAMPLING PROCEDURE AND SAMPLE SIZE

The total number of 300 questionnaires was administered to the respondents (students) 266 questionnaires were correctly filled and were returned in their respective department during a core course. This is a course that is compulsory for the entire student's population in particular level or year, for lesson. The remaining 34 questionnaire were not returned.

#### DATA ANALYSIS

Quantitative data collected in this study were analysed, using descriptive statistics which include frequency count, percentages and influential (chi-square). Statistical Package for Social Sciences (SPSS) version 14.0 was used for coding the scores from the study. Chi-square ( $\chi^2$ ) was used to test for the presence of associations in their variables obtained.

$$\chi^2 = \frac{\sum(f_o - f_e)^2}{f_e} \quad \chi^2 = \frac{\sum(\text{observed frequency} - \text{Expected frequency})^2}{\text{Expected frequency}}$$

Where,  $\chi^2$  = Chi-square

$f_o$  = observed frequency

$f_e$  = expected frequency

Null hypothesis (H0): There is no direct positive relationship between the internet users and the e-mail account (address).

Alternative Hypothesis (H1): There is direct positive relationship between the internet users and the e-mail account (address).

Null Hypothesis (H0): There is no direct positive relationship between the department and the students who have interest in surfing the internet.

Alternative Hypothesis (H1): There is direct positive relationship between the departments and the students who have interest in surfing the internet.

**RESEARCH QUESTIONS**

- i) How long have you been using internet?
- ii) Have you got an e-mail address?
- iii) Which search engine do you use on internet?
- iv) Do you download materials (e-books) from the internet?
- v) If there are textbooks (hand copies) in the school library and you also can access same materials on internet (soft copy), which one would you prefer most.

**RESULTS**

The results of the data were analyzed and presented as follows:

Table 1 – 4: Bio data information on users of internet.

**Table 1:** Table showing the range of respondent’s age

		Frequency	Percent	Valid Percent
Valid	18-24 years	23	8.6	8.6
	25-29 years	208	78.2	78.2
	30-34 years	35	13.2	13.2
	Total	266	100.0	100.0

Source: Field survey 2014.

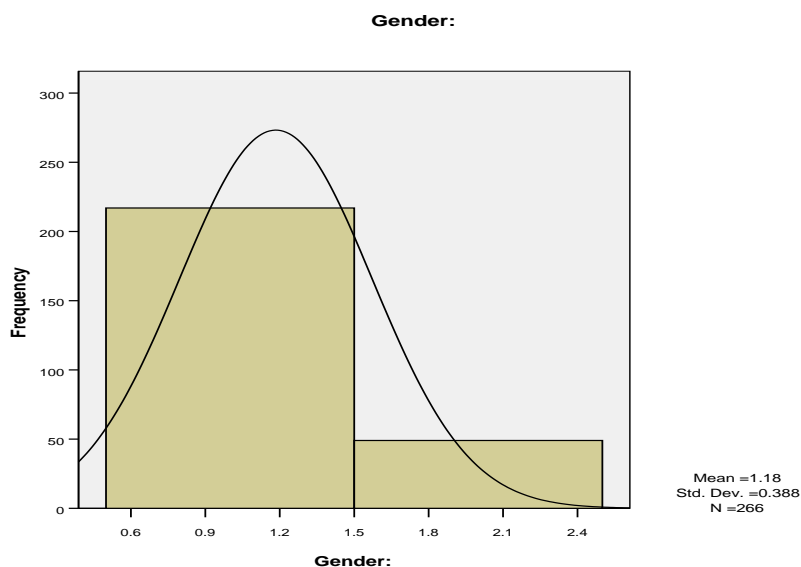
Table 1 above shows that 8.6% of the respondents are within the age range of 18 – 24 years, while 91.4% of the most respondents (users of internet) fall within the age of 25 – 34 years.

**Table 2:** Table showing the gender of the respondents

		Frequency	Percent	Valid Percent
Valid	Male	217	81.6	81.6
	Female	49	18.4	18.4
	Total	266	100.0	100.0

Source: Field survey 2014.

The result in table 2 shows that the majority of the respondents 217 (81.6%) are male while the remaining 49 (18.4%) of the respondents are female. This means that male students have much interest of surfing the internet than female students; and it is indicated by (N = 266; MEAN = 1.18; STD. DEV. = 0.388).



**Figure 1:** Graph showing the gender of respondents  
**Source:** Author’s file

**Table 3:** Table showing all the respondents across the department

		Frequency	Percent	Valid Percent
Valid	AHP	101	38.0	38.0
	AGT	66	24.8	24.8
	CS	36	13.5	13.5
	AET	16	6.0	6.0
	FOT	47	17.7	17.7
	Total	266	100.0	100.0

Source: Field survey 2014.

Table 3 indicated that 101 of the respondents (38.0%) are from AHP department, 66 of the respondents (24.8%) are from AGT department, 36 of the respondents (13.5%) are from CS department, while 16 of the respondents (6.0%), 47 of the respondents (17.7%) are from AET and FOT department respectively. It is indicated by (N = 266; MEAN = 2.41; STD. DEV. = 1.48).



**Figure 2:** Graph showing the respondents across the department

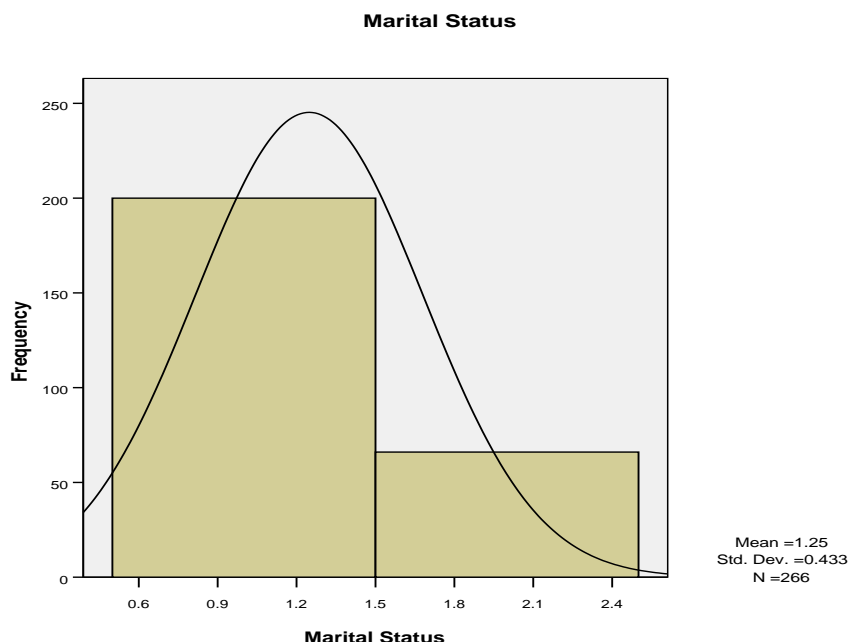
Source: Author's file

**Table 4:** Table showing the marital status

		Frequency	Percent	Valid Percent
Valid	Single	200	75.2	75.2
	Married	66	24.8	24.8
	Total	266	100.0	100.0

Source: Field survey 2014.

Table 4 revealed that 200 of the respondents (75.2%) are single. This means that unmarried men and women have enough time and most interest of surfing the internet while 66 of the respondents (24.8%) are married. It is indicated by (N = 266; MEAN = 1.25; STD. DEV. = 0.433).



**Figure 3:** Graph showing the marital status of respondents

**Source:** Author’s file

**Table 5:** How long have you been using internet?

		Frequency	Percent	Valid Percent
Valid	2-3 years	189	71.1	71.1
	3-4 years	70	26.3	26.3
	5 years and above	7	2.6	2.6
	Total	266	100.0	100.0

Source: Field survey 2014.

Table 5 above shows that 189 (71.1%) of respondents surf the internet to get materials since 2-3 years, 70 (26.3%) surf the internet since 3-4 years, and only 7 (2.6%) surf the internet to get their materials since 5 years.

**Table 6:** Have you got an e-mail account (address)?

		Frequency	Percent	Valid Percent
Valid	Yes	238	89.5	89.5
	No	28	10.5	10.5
	Total	266	100.0	100.0

Source: Field survey 2014.

The result in table 6 shows that the majority 238 (89.5%) of the respondents got an e-mail address while 28 (10.5%) of the respondents had not yet got an email account (address).

**Table 7:** Which search engine do you use on internet?

		Frequency	Percent	Valid Percent
Valid	Google	175	65.8	65.8
	Yahoo	64	24.1	24.1
	Msn	27	10.2	10.2
	Total	266	100.0	100.0

Source: Field survey 2014.

Table 7 above shows that 175 (65.8%) of respondents uses Google search engine to access the internet, 64 (24.1%) of the respondents uses yahoo search engine and only 27 (10.2%) of the respondents uses Msn search engine to access the internet during academic studies.

**Table 8:** Do you download materials from internet?

		Frequency	Percent	Valid Percent
Valid	Yes	215	80.8	80.8
	No	51	19.2	19.2
	Total	266	100.0	100.0

Source: Field Survey, 2014.

Majority of the respondents 215 (80.8%) download their materials (e-books) from the internet while 51(19.28) of the respondents access their materials from different sources.

**Table 9:** If there are textbooks (hard copies) in the school library, and you also can access same materials on internet (soft copy), which one would you prefer most?

		Frequency	Percent	Valid Percent
Valid	The school library	31	11.7	11.7
	The internet	123	46.2	46.2
	Both	112	42.1	42.1
	Total	266	100.0	100.0

Source: Field Survey, 2014.

The result in table 9 above shows that 31(11.7%) of the respondents (students) prefer the use of school library, 123 (46.2%) of the respondents (students) prefer the use of the internet to get the latest materials (e-books) while 112 (42.1%) of the respondents (students) prefer both the use of school library and the use of internet services to download their materials.

**Table 10:** Chi-square analysis on the departmental users of internet and the e-mail account (address).

Count		Have you got an e-mail account?		Total
		Yes	No	
Department:	AHP	84	17	101
	AGT	62	4	66
	CS	34	2	36
	AET	15	1	16
	FOT	43	4	47
Total		238	28	266

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.119 <sup>a</sup>	4	.130
Likelihood Ratio	6.999	4	.136
Linear-by-Linear Association	2.789	1	.095
N of Valid Cases	266		

a 3 cells (30.0%) have expected count less than 5. The minimum expected count is 1.68.

#### Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.164	.130
	Cramer's V	.164	.130
N of Valid Cases		266	

a Not assuming the null hypothesis.

b Using the asymptotic standard error assuming the null hypothesis.

Source: Field Survey, 2014.

**Decision Rule:**  $X^2(4) = 7.119^a$ ,  $P \leq 0.130$

Table 10 above revealed that there is a significant relationship between the users of internet during studies and those who got an e-mail address. The data was analyzed using Chi-square and the null hypothesis was rejected, since P. value  $\leq 0.130$  is less than 5% level of significance and  $X = 7.119^a$  and 4 degree of freedom.

**Table 11:** Chi-square analysis on the departmental respondents and the students who have interest in surfing the internet.

Count	The introduction of a course called GNS 211 Computer Appreciation; make students to have interest of surfing the internet?			Total
	Yes	No		
Department:	AHP	86	15	101
	AGT	64	2	66
	CS	30	6	36
	AET	15	1	16
	FOT	42	5	47
Total		237	29	266

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.423 <sup>a</sup>	4	.115
Likelihood Ratio	8.689	4	.069
Linear-by-Linear Association	.252	1	.616
N of Valid Cases	266		

<sup>a</sup> 2 cells (20.0%) have expected count less than 5. The minimum expected count is 1.74.

Source: Field Survey, 2014.

**Decision Rule:**  $X^2(4) = 7.423^a$ ,  $P \leq 0.115$

The result of chi-square in table 11 shows that there is a significant relationship between the departments (respondents) and the students (respondents) who have interest in surfing the internet during the academic studies. The data was analyzed using Chi-square and the null hypothesis was rejected, since P. value  $\leq 0.115$  is less than 5% level of significance and  $X^2 = 7.423^a$  and 4 degree of freedom.

### SUMMARY AND CONCLUSION

The research regarding the use of internet in enhancing academic studies observed that unmarried man and women have much interest in surfing the internet at 75.2% with the age range between 25 – 34 years. The majority of the students 89.5% got an e-mail (account) address 81.6% of male have much interest of surfing the internet, 65.8% uses Google search engine, 24.1% uses yahoo search engine on the internet to browse their materials. 46.2% prefer the use of the internet, 42.1% prefer both the internet and library to browse their materials while only 11.7% prefer the use of school library catalogue to get their research materials and finally agreed that the internet enhanced student’s academic studies.

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