

INTERNET USAGE AND STUDENTS' ACADEMIC PERFORMANCE IN NIGERIA TERTIARY INSTITUTIONS: A CASE STUDY OF UNIVERSITY OF MAIDUGURI

Peter M. Ogedebe
Bingham University,
Nasarawa State
NIGERIA.

ABSTRACT

This paper examines the extent of usage of Internet among Nigerian University undergraduate and how this has affected their performance. Internet is indeed a powerful tool for academics - students and researchers. The Internet has been shown to influence the academic performance as shown in available literature has shown that it could be positive and/or negative. A questionnaire was designed and administered to students in the Departments of Accountancy and Microbiology, University of Maiduguri, Nigeria. A total of 350 respondents returned the completed questionnaire. Three research questions were raised and were accordingly addressed. The paper was therefore of the opinion that if Internet Services are fully exploited, the performance of students in institutions of higher learning in Nigeria will improve.

Keywords: internet, academic performance, microbiology, accountancy

INTRODUCTION

Internet plays a fundamental role in organizations and society. The basic fact justifies the information revolution that has been taking place across the globe in recent times. The term Internet according to Cawkell in Ogedebe (2004, p.152) is a large computer network formed out of some thousands of interconnected networks, and it supports a whole range of services such as electronic, file transfer protocol, database access and many others. It is therefore not surprising the success story behind the advent of Internet. That is why today, the Internet has linked thousands of nations and enterprises across the world. Hence, the world which appears physically large has been made to be too small by Internet and reference to it as "global village".

REVIEWED LITERATURE

For obvious reasons, it should be noted that the impact of Internet access on on-campus instruction is still very low for various reasons: The technology is new, very costly, and perhaps too threatening to existing academic structures and traditions. This view was supported by Brown and Duguid (1996). The influence of Internet on Academic Performance of students differs depending on population. Some studies reported no significance effect, however, other studies affirmed effect of Internet access of students with a post test results according to Ehrman (1995).

In contributing to the academic performance of students, Wagner (1998) saw internet as a forum that promote group discussion which is time and distance independent. The world wide web service provided by the internet with over 5 million web sites allow students from all disciplines to source for relevant information. Busari (2001) sees the internet as a medium through which lecturers and students can meet without seeing each other. Students can also learn through teleconferencing whereby the use of small video camera and microphone members of the group can actually see and hear each other.

Sanni et al (2009) in a recent study observed that there is a gender difference in internet use and thus adequate attention should be paid to ensuring equal access between male and female students. The study also establishes that the present level of capabilities for internet-assisted research is encouraging and that improving internet facilities in our universities will enhance academic research in Nigerian tertiary institutions if strategically embarked upon.

In a report by The Future of Children(2005), the research conducted appears to corroborate parents' perceptions that home computer use is related to better academic performance. For example, early home computer use studies found that high school students who used educational software at home scored significantly higher than other students on computer literacy tests. Home computer use has been linked to improvements in general academic performance as well. For example, a longitudinal study published in 1995 which tracked a group of students from seventh through twelfth grade, found that the students with computers at home had higher overall grades and better grades in math and English than those without home computers. Furthermore, students with home computers are also more likely to have families with greater income and education, factors that are highly correlated with better academic performance. But even just among those with home computers, heavier users performed better academically than light users: students who reported using their home computers for at least 10 hours during the school year for activities unrelated to a class also reported better overall grades, better grades in math and English, and did better on a test of scientific knowledge than those who reported using their home computer less.

Geri and Grace-Martin (2001) discovered that the emergence of statistically significant results suggests that quantitative characteristics of browsing behavior can be useful predictors of meaningful behavioral outcomes. Variables such as number of browsing sessions and length of browsing sessions correlated with students' final grades. The valence and magnitude of these correlations were found to interact with the course (whether a student was enrolled in the communications or computer science course), browsing context, and gender.

According to Carvin (2006) researchers noted that for the first six months of the study, Internet access appeared to have no effect on GPA. However, Internet usage did predict GPA obtained after one year of home access. This pattern continued through the end of the study, the researchers observing a correlation between home Internet access and higher grade points. They also correlated home access with higher standardized test scores in reading: More time online was associated with higher reading comprehension and total reading scores. They attributed these results to the text-heavy nature of Internet. Having access to the amount of information that the Internet provide help students complete homework and projects. Socializing tools help students study with their peers. Students already use this technology and if teachers starts to teach their students to use these tools to enhanced their education, then there will be a strong correlation between Internet access and GPA.

Osunade, Ojo and Ahisu (2009) research work showed a significant difference in academic performance between those who had Internet access and those without.

RESEARCH QUESTIONS

Research Question No.1

How do students in the University use Internet services? The answer to this research question could be obtained from the items presented in the tables below:

Table 1. Do you use the Internet?

<i>Option</i>	<i>No of Respondents</i>	<i>Percentage (%)</i>
Yes	261	75
No	80	23
No Response	9	2
Total	350	100

Source: Fieldwork, 2009

From table 1, 75% of the respondents sampled used the Internet, 23% do not, while 2% neglected the question. This means that majority of the respondents use the Internet.

Table 2. What time of the day do you prefer to browse?

<i>Option</i>	<i>No of Respondents</i>	<i>Percentage (%)</i>
8 am – 12 noon	42	12
12 Noon – 6 pm	33	9
6 pm – 11 pm	75	21
Overnight	186	53
No response	14	5
Total	350	100

Source: Fieldwork, 2009

From table 2, 12% of the respondents prefer to browse between the hours of 8 am and 12 noon, 9% between 12 noon and 6pm, 21% between 6 pm and 11 pm, 53% during the overnight session. 5% of the respondents constituting 53% of the total respondents prefer to browse overnight. It can be concluded that majority of the respondents constituting 53% of the total respondents prefer to browse overnight.

Table 3. How often do you browse the Internet in a week?

<i>Option</i>	<i>No of Respondents</i>	<i>Percentage (%)</i>
0 – 2 days	256	73
3 – 5 hours	26	7
6 – 7 minutes	11	3
No response	57	17
Total	350	100

Source: Fieldwork, 2009

It could be observed from table 3 that 73% of the respondents agreed that they surf the Internet between 0 – 2 days a week, 7% browse 3 – 5 hours in a week, 3% browse 6 – 7 minute in a week, while 17% of the respondents refused to respond to the question.

The analysis shows that majority of the respondents preferred between 0-2 days as regards how often the respondents browse the Internet in a week.

Table 4. Why do you use the Internet?

<i>Option</i>	<i>No of Respondents</i>	<i>Percentage (%)</i>
Search for relevant academic material	156	45
Send and receive E-mails	47	13
Enhance migration to Europe or America	7	2
Satisfy my lecturers	23	7
None of the above	108	31
No response	9	2
Total	350	100

Source: Fieldwork, 2009

From table 4, 45% of the respondents use the Internet to search for relevant academic materials, 13% use it to send and receive E-mails, 2% use it as a result of migration to America or Europe, 7% use it to enable them satisfy their lecturers, while 31% choose none of the above; 2% of the respondents left the question unanswered. The findings reported in table 4 are not farfetched from the findings of Tella (2007, p161).

Table 5. Do you visit cyber cafés or Computer Centre?

<i>Option</i>	<i>No of Respondents</i>	<i>Percentage (%)</i>
Yes	211	60
No	72	21
No Response	67	19
Total	350	100

Source: Fieldwork, 2009

From table 5, 60% of the respondents visited Internet centers while 21% don't visit. 19% left the question unattended to.

The analysis from tables 1 to 5 answered the question: how do students in the University use the Internet services.

Table one (1) shows that 216 of the respondents responded yes, that means that majority of the respondents use the Internet. Similarly, tables two (2) and three (3) show the time and the day the respondents like to browse as well as the duration of the time in a week they browse respectively.

Question 18, presented in table four (4) indicated clearly that, 156 respondents constituting 45% of the total respondents were of the opinion that they use the Internet to obtain relevant academic materials. This shows that most of the students under study use the Internet to enhance their study.

Finally, Question 19 as presented in table five (5), shows that 211 of the respondents constituting 60% of the total respondents visit the cyber cafe or Internet Centres. Therefore students in the University use Internet facilities.

Research question two (2)

The second research question reads: "What is the academic performance of the students who use Internet services?" As mentioned earlier, the relevant answers to the above question will be presented as responded to by the respondents in tables below:

Table 6. Are you computer literate?

<i>Option</i>	<i>No of Respondents</i>	<i>Percentage (%)</i>
Yes	228	65
No	103	29
No Response	19	6
Total	350	100

Source: Fieldwork, 2009

From table 6, 65% of the respondents agree that they are computer literate, while 29% are not. 6% of the respondents neglect the question. Therefore most of the respondents are computer literate.

Table 7. Has internet enhanced your academic performance?

<i>Option</i>	<i>No of Respondents</i>	<i>Percentage (%)</i>
Yes	277	79
No	46	13
No Response	27	8
Total	350	100

Source: Fieldwork, 2009

79% of the respondents accepted that their academic performance has improved by using the Internet, while 13% believed otherwise. 8% made no response to the question according to table 7.

Table 8. How has the internet services helped you in your academic pursuit?

<i>Option</i>	<i>No of Respondents</i>	<i>Percentage (%)</i>
GPA has improved remarkably	29	8
GPA has been on the decline	20	6
Better preparation	97	28
None of the above	77	22
No Response	126	36
Total	350	100

Source: Fieldwork, 2009

Table 8 was used to present question seventeen (17). This question was actually not intended for comparison, but to show the areas where respondents believed that the Internet services have helped them in their academic pursuits.

From the above, 8% believed that their GPA has improved remarkably as a result of the use of the Internet, 6% of the respondents agreed that their GPA has been declining, 28% responded that it aids them in preparing better for CA and semester examinations, while 22% were indifferent about the options and therefore did not respond. Majority of the respondents constituting 36% of the total respondents refused to respond to the question.

However, the second question raised is: "What is the academic performance of the students who use Internet services?" Tables 6 and 7 show clearly the needed answers to the question. For instance, table 6 indicated clearly that 228 of the total respondents are computer literate. This constitutes 65% of the total respondents; hence most of the respondents have knowledge of computer. In the same vein, table 7 shows that 277 respondents constituting 79% of the total respondents agreed that the use of the Internet has enhanced their academic performance.

Research question three (3). The third research question is: "what is the relationship between the use of the Internet service and students' academic performance?"

Relevant answers to the above question are presented in tables below.

Table 9. Name a popular website you often visit?

<i>Option</i>	<i>No of Respondents</i>	<i>Percentage (%)</i>
Yahoo.com	128	37
Google.com	51	15
Others	98	28
No Response	73	20
Total	350	100

Source: Fieldwork, 2009

As clearly shown in table 9, it could be observed that 37% of the respondents visit yahoo's home page, 15% visit Goggle's home page while 28% visit other Websites. 20% of the respondents neglected the question. The question was intended to find out if really the respondents visit any Website.

Table 10 do you get any information relevant to your course while browsing the internet?

<i>Option</i>	<i>No of Respondents</i>	<i>Percentage (%)</i>
Yes	304	87
No	29	8
No Response	19	5
Total	350	100

Source: Fieldwork, 2009

Table 10 shows that 87% of the respondents' claim they get relevant information pertaining to their course of study while browsing the Internet, 8% claim they do not. 5% of the total respondents made no response to the question. Therefore, majority of the respondents obtain relevant information from the Internet.

Table 11.if yes, how often?

<i>Option</i>	<i>No of Respondents</i>	<i>Percentage (%)</i>
Often	114	33
Not often	157	45
No response	79	22
Total	350	100

Source: Fieldwork, 2009

Table 11 shows that 33% of the total respondents responded that they often obtained relevant information pertaining to their course while browsing the Internet, 45% responded not often, while 22% left the question unattended to. Hence, most of the respondents do not often obtain information relevant to their courses of study.

Table 12.In terms of improvement of your academic work, which of these facilities best serve your interest?

<i>Option</i>	<i>No of Respondents</i>	<i>Percentage (%)</i>
Library facilities	31	9
Internet facilities	71	20
Handouts	29	8
Lecture notes	123	35
Books	36	10
Non of the above	60	8
No Response	0	0
Total	350	100

Source: Fieldwork, 2009

From table 12, it could be observed that 9% of the respondents used the library facilities to enhance their studies 20% responded that the Internet services best serve their interest, 8% responded towards handouts, 10% responded towards books and 18% responded none of the above. Hence majority of the respondents prefer lecture notes to the other options, they constitute 35% of the total respondents.

Discussion of the Findings

Table 13. Computation of correlation coefficient of ume students

<i>Frequency of visits (x)</i>	<i>GPA (Y)</i>	<i>XY</i>	<i>X²</i>	<i>Y²</i>
7	2.98	20.86	49	8.88
1	2.25	2.25	1	5.06
3	2.01	6.03	9	4.04
3	2.73	8.19	9	7.45
3	3.35	10.05	9	11.22
4	1.67	6.68	16	2.79
5	1.18	5.9	25	1.39
1	1.74	1.74	1	3.03
1	2.48	2.48	1	6.15
2	3.11	6.22	4	9.67
4	1.54	6.16	16	2.37
2	2.80	5.6	4	7.84
32	27.84	82.16	144	69.89

Source: Questionnaire, and status from Accounting Department.

Comment: Since the obtained value of the correlation is negative i.e. -0.10 approximately. The value was given at 0.05 significant level, meaning that there was an insignificant negative correlation between the frequency of visits to the cyber café by the students and its impact on their academic performance.

Table 14. Computation of correlation coefficient of the de students

<i>Frequency of visits (x)</i>	<i>GPA (Y)</i>	<i>(XY)</i>	<i>X²</i>	<i>Y²</i>
5	3.72	18.6	25	13.84
5	2.52	12.6	25	6.35
1	3.14	3.14	1	9.86
1	3.93	3.93	1	15.44
2	3.29	6.58	4	10.82
2	3.57	7.14	4	12.74
2	3.37	6.74	4	11.36
2	1.41	2.82	4	1.99
2	4.03	8.06	4	16.24
2	2.21	4.42	4	4.88
1	4.34	4.34	1	18.84
1	2.84	2.84	1	8.07
26	38.37	81.21	78	130.43

Source: Questionnaire, and status from Accounting Department.

Comment

The correlation value obtained is -0.15 negative for the DE student. At the 0.05 significant levels, this is very insignificant to have indicated any strong inverse correlation between the frequency of visits by the respondents to the cyber café and their academic performance using part three (3) to four (4) academic status of the randomly selected respondents.

Table 15. Computation of correlation coefficient of the ume students

Frequency of visits (x)	GPA (Y)	XY	X ²	Y ²
7	2.61	18.27	49	6.81
1	1.92	1.92	1	3.69
3	1.92	5.76	9	3.69
3	2.42	7.26	9	5.86
3	3.11	9.33	9	9.67
4	1.50	6.00	116	2.25
5	1.18	5.90	26	1.39
1	1.98	1.98	1	3.92
1	2.62	2.62	1	6.86
2	3.14	6.28	4	9.86
4	1.64	6.56	16	2.69
2	2.75	5.50	4	7.56
36	26.79	77.38	144	64.25

Source: Questionnaire, and status from Accounting Department.

Comment

The correlation value obtained is -0.24 approximately. The value was given at 0.05 significant level, this means that there is an insignificant negative correlation between the frequency of visits to the cyber café by the respondents and its impact on their academic performance.

Table 16. Computation of correlation coefficient of de students

Frequency of visits (x)	GPA (Y)	XY	X ²	Y ²
5	3.71	18.55	25	13.76
5	2.54	12.70	25	6.45
1	2.65	2.65	1	7.02
1	3.69	3.69	1	13.62
2	3.89	7.78	4	15.13
2	3.61	7.22	4	13.03
2	3.35	6.70	4	11.22
2	1.16	2.92	4	2.13
2	2.59	5.18	4	6.71
2	2.99	5.98	4	8.94
1	4.38	4.38	1	19.18
1	2.63	2.63	1	6.92
26	37.49	80.38	78	124.11

Source: Questionnaire, and status from Accounting Department.

Comment

The computed correlation value is insignificantly negative at 0.05 significant levels. This value is so meager to have shown any significant negative correlation between the frequency of visits to the café by the respondents and their academic performance.

After computing the correlation between the frequency of visits to the computer centre and the Grade Point Average (GPA) of the Accountancy students, the researcher deemed it necessary to equally compute for another set of students, that is, the present part three (3) Microbiology students that were equally issued some questionnaire. This of course was done to remove the possibility of bias or preferential treatment.

A group of (12) Microbiology students were randomly selected and the frequency of visits to the cyber café by the students and their performance academically in terms of their GPA as was previously used for the Accountancy students, was equally applied. This was done to determine if any relationship exist between the frequency of visits to the cyber café and the performance of students.

Table 17. Computation of the correlation coefficient of the microbiology students

<i>Frequency of visits (x)</i>	<i>GPA (y)</i>	<i>XY</i>	<i>X²</i>	<i>Y²</i>
5	3.02	15.1	25	9.12
2	1.17	2.34	4	1.37
1	1.56	1.56	1	2.43
3	4.17	12.51	9	17.39
4	3.04	12.16	16	9.24
1	1.58	1.58	1	2.50
1	2.21	2.21	1	4.88
2	1.91	3.82	4	3.65
3	2.69	8.07	9	7.24
4	2.13	8.52	16	4.54
5	2.24	11.2	25	5.02
7	3.27	22.89	49	10.69
38	28.99	101.96	160	78.07

Source: Questionnaire, and status from Microbiology Department.

Comment

The outcome of the correlation coefficient of the Microbiology students indicated a strong positive correlation of approximately 0.57. At the 0.05 significant levels, this outcome is significantly large to have indicated a degree of relationship between the frequency of visits by the students of Microbiology to the cyber café and its impact on their academic performance

The reason for the computation of the correlation coefficients was to determine if any relationship exists between the rates at which the respondents visit the cyber café and their performance academically.

CONCLUSION

This study collaborates the studies by Osunade, Ojo and Ahisu; Sanni et al (2009); Becker, (1999), Van Dusen and Worthen (1994) that showed that the exists positive correlation between Internet usage and academic achievement. The Internet has been shown to influence the academic performance of students both at the local and international levels. Furthermore, it was the view of NCAA (2007) that Internet knowledge should be used to improve academic performance.

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