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**INTERNET BEHAVIOURS AS PREDICTORS OF
READING PROFICIENCY OF MODEL SENIOR
SECONDARY SCHOOL STUDENTS IN IBADAN
METROPOLIS, OYO STATE**

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Abstract

The study investigated the internet behaviours of students in selected model senior secondary schools in Ibadan metropolis and the extent to which these behaviours predicted their reading proficiency. The study adopted the descriptive research design with a sample of 500 senior secondary school (II) students randomly selected from ten model senior secondary schools in Ibadan Metropolis of Oyo state. Two instruments were validated and used for data collection: Students' Internet Behaviour Questionnaire ($r=.87$) and Reading Proficiency Test ($r=.79$). Frequency counts, percentages and multiple regression analysis were used to analyse data. The results which were

interpreted at 0.05 level of significance show students' internet behaviours as accounting for 1.8% of the total variance in reading proficiency ($F_{(9,489)} = 2.036$; $p < .05$) and e-mailing predicting students' reading proficiency ($\beta = -.188$, $t = -3.393$; $p < .05$). Recommendations were made that teachers should deploy e-mail as a resource of enhancing reading.. Efforts should also be made to ensure internet facilities are made easily accessible and available in schools, public libraries and in homes.

Key Words: Internet Behaviour, Predictors, Reading, Proficiency, Model School

Introduction

Reading is an activity that is considerably vital to the attainment of literacy, which involves the comprehension and interpretation of ideas of a given text. Literacy is the ability to use the symbols of a writing system. It is the ability to interpret the information symbols represent, and the ability to re-create those same symbols so others can derive the same meaning. Reading is a very important aspect of language skills that students need to develop. Establishing a clear definition of reading provides an important perspective for evaluating reading. Most educators would agree that the major purpose of reading should be the construction of meaning, comprehending and actively responding to what is read.

Two of the most widely cited and agreed-upon definitions of reading are: Reading is the process of constructing meaning from written texts. It is a complex skill requiring the coordination of a number of interrelated sources of information (Anderson, 1998). Reading is the process of constructing meaning through the dynamic interaction among: (1) the reader's existing knowledge; (2) the information suggested by the text being read; and (3) the context of the reading situation (Wixson, Peters, Weber, and Roeber, 1987).

From the foregoing, reading is seen to be basic to learning, with every activity of meaningful reading comes expansion of the horizon of

learning. Reading capability determines to a great extent how learners would access other subjects. So students' ability to read is the centre of the educational process. As significant as reading is to the academic and professional success of students, researchers and educationists are still of the opinion that majority of secondary schools students possess poor reading ability (Lawal, 1997). The effect is felt in the students' inability to read fast, bring out facts from passages, separate relevant details retain and recall what is read and maintain a strong vocabulary base (Unoh, 1988).

According to Leu (2002), reading performance in lower grades is a strong predictor of academic success at higher levels. Many adolescent students are below basic in reading or not proficient, thus putting their futures at risk. The academic demands on students at the secondary level assume they are able to read to access learning (Allington, 2007). Students who struggle with reading have difficulties in all subject areas because they are not able to read high volumes of information with understanding in a timely manner (Whitehurst, 2007).

Students' poor academic performance is traceable to the general poor reading culture. Invariably, this is reflected on the students' level of reading proficiency. Although efforts are made by researchers and teachers to help solve this poor reading culture among these students, it has been observed that they prefer visiting cybercafés to reading. For some, the difficulties encountered while reading is responsible for the decline in their reading culture.

According to www.reading_difficulties.htm some of the difficulties encountered by these students while reading include: Decoding difficulties, Comprehension difficulties and Retention difficulties. Most students have problems reading because they lack specific skills necessary for proficient reading.

In the field of reading, proficiency is typically defined in terms of efficiency of processing, specifically the coordination of reading subcomponents such as decoding and rapid word recognition skills and the effective use of phonemic, orthographic, lexical, syntactic, and semantic systems. From the predominant view, “proficient” or “skilled” readers are defined as people who efficiently and automatically use skills and strategies, capitalizing on strong subcomponent processes and compensating for weaker ones to comprehend what they read (Pressley, 2002; Stanovich, 1980).

Reading proficiency can be described as more than simply the ability to decode the written words in the text; it is also the active creation of meaning in an interactive process between information in a text and the reader’s knowledge. Reading proficiency requires the reader to independently begin and persist in reading tasks, actions that hinge on motivation. As students move through the grades, especially at the secondary school level, their motivation to choose to read tends to decline. Experts in reading (Oyetunde and Umolu, 1999; Pressley and Wharton-MacDonald, 1997) explain that reading proficiency involved reading with automaticity, manifesting a less wait-time in words recognition and consistently demonstrating high comprehension on texts.

A proficient reader tends to spend more time doing reading and as a result has a rich vocabulary, understands content and appreciates the language of texts. Watkins and Edwards (1992) and Cullinan (2000), emphasized that academic performance is closely related to reading performance and should be thoroughly handled in students.

The internet is a wonderful resource for many things, it has information needed at finger tips; it is fast, easy and oftentimes fun-filled. It has gradually become a huge part of modern life. Many students use the internet for various purposes, which have grabbed a huge slice of their available time and energy. This invariably has some effect on their level of reading proficiency. Some read at frustration or

instructional level and these are glaringly observed in their academic performance.

Reading proficiency does not take place in a vacuum, it has to be well-aided by rich literacy environments. As the learning environment goes digital, virtual and internet-based, a good use of the internet is a critical factor that determines students' academic success in school (Cheung and Huang 2005; Kinshuk 2002). As the internet becomes a common feature in Nigeria, teachers and researchers begin to search for ways to take advantage of its potential for students' learning. The role of the internet in reading proficiency is becoming vital because it opens a vast array of resources to both teachers and students. The union of reading and technology on the internet is causing educators to take a new look at what it means to be literate in today's society (Leu, 2002).

New forms of literacy call upon students to know how to read and write not only in the print world but also in the digital world. Today's definition of literacy is being broadened to include "literacy skills necessary for individuals, groups, and societies to access the best information in the shortest time to identify and solve the most important problems and then communicate this information" (Leu, 2000). This requires a rethink of what it means to be a reader or even a literate person. This in essence implies that, knowing how to access, evaluate, and apply information is necessary for academic success.

In humans, behaviour is believed to be controlled primarily by the endocrine system and the nervous system. Humans respond to various stimuli or inputs, internal or external, voluntary or involuntary. Behaviour provides outputs from humans to their environment. Combs (1991) explained that one's behaviour at any point in time is not causes but consequences of what is already operating within the individual. These students involve themselves with many activities; one of such is internet activities. Internet behaviour on the other hand refers to activities students engage in on the internet. Today, more people tend to rely more on internet-based resources than paper-based

resources. Being able to successfully use the internet places special demands on the reader (Kamil and Lane, 1998).

In the words of Schmar-Dobler (2003) the internet reader must be able to handle the volume of text, which can be described as massive. The potential for gathering information is virtually unlimited. Through links, or internet connections, a reader can access innumerable sites related to the original idea or topic of a search. Second, much internet content has blinking graphics, vivid colour, and lots of eye-catching phrases that can guide or distract from the reading. A reader must be able to evaluate all the features of a webpage and quickly decide which one will likely be the most helpful in accessing information. Third, most of the texts on the internet are expository. Being able to read such text requires familiarity with its concepts, vocabulary, and organizational format. In an analysis of 50 websites, 48 contained expository texts, while 2 sites contained narrative text (Kamil and Lane, 1998).

Expository text is usually found on the Internet written as hypertext where highlighted elements within it, such as a word or phrase, are linked to other texts. Each link can lead to a definition, additional information, or a video or audio example related to the original linked word or phrase. By selecting links in various orders, a reader creates his or her own path when reading on the internet. This path can be ever changing because information on the internet is ever changing, with websites continually being updated, removed, or remodelled. Text on the internet is not static whereas the text of a book remains the same each time the book is opened. The internet is "an interactive model of continuously updating information" (Whitehurst, 2007). The skills required to comprehend text (expository text in particular) are used when students search the internet for an answer to a question or just browse from website to website. To be persistent in seeking, evaluating, and using information found on the internet, readers must navigate through Internet text and apply their knowledge of the reading process. The merging of these skills is seen when the Internet

reader performs a reading act, such as searching the Internet for information on any subject.

However, many students do not choose to read often or in great quantities. In recent years, scholars from various disciplines have studied the amount of time students choose to read and the effect of the internet on cognitive functions. Furthermore, as students get older, the amount of reading they do decrease.

Statement of the Problem

Students' poor academic performance is traceable to the general poor reading culture. Invariably, this is reflected on the students' level of reading proficiency. It is disheartening today to see students who are unable to read proficiently. The reading culture of secondary school students has drastically reduced. Although efforts are made by researchers and teachers to help solve this poor reading culture among these students, it has been observed that they prefer visiting cybercafés to reading. When students visit the internet, they engage in many activities. The various uses into which internet is put represent the students' internet behaviour which is capable of either enhancing or jeopardising their reading proficiency. Previous studies had identified the various activities that students use internet for but there is a dearth of research on the extent to which these internet activities would predict their reading proficiency especially in Ibadan Metropolis. Therefore, this study investigated the various activities students in selected model senior secondary schools in Ibadan metropolis engaged in on the internet and how these activities predicted their reading proficiency.

Research Questions

The following research questions were raised and answered in the study:

1. What are the various activities students engage in on the Internet?
2. What is the relative contribution to reading proficiency of:

- a. Chatting?
 - b. E-mailing/Instant messaging/Blogging?
 - c. Playing games?
 - d. Informational internet use?
 - e. Surfing for fun?
 - f. Accessing entertainment sites?
 - g. Visiting music sites?
 - h. Reading news online?
3. What is the composite contribution of Internet behaviours to reading proficiency?
 4. Which of the Internet behaviours would predict students' proficiency in reading?

Significance of the Study

This study would provide empirical information on the kinds of behaviours students engaged in on the internet and how these could predict their reading proficiency. Furthermore, it would serve as an eye-opener to desirable internet behaviours students engaged in and how they could be assisted to channel these desirable internet behaviours towards improved academic performance in general and reading proficiency in particular. It would also help in detecting or discovering desirable internet behaviours that students engaged in, so as to prevent undesirable internet behaviours from negatively affecting their reading proficiency. Finally, findings from this study are expected to provide a clear understanding of the part students' internet behaviours play in enhancing students' reading proficiency. It would make students, parents as well as teachers aware of the benefits inherent in the use of internet activities and provide an enabling environment for the reading growth of these students. It is believed that these findings will encourage government to channel resources towards improving internet facilities in schools and public libraries.

Methodology

The research adopted a Descriptive Research Design or Survey type in which the researcher collected relevant data and subjected them to analysis without manipulation of any variable. The study was designed to determine if the various behaviours engaged in by the students would predict reading proficiency. The study participants were five hundred (500) students randomly selected from ten selected model senior secondary schools in Ibadan Metropolis. Student Internet Behaviour Questionnaire (SIBQ) and Reading Proficiency Test (RPT) were the instruments used in data collection. The Reliability for SIBQ was determined using Cronbach Alpha and a coefficient of .87 was gotten. The Reliability for RPT was determined with Test-Retest method and a coefficient of .79 was obtained. The 500 copies of SIBQ were administered after the administration of RPT. All the copies of questionnaire and test were collected back on the spot. In all, data collection took a total of two (2) weeks. Descriptive statistics of Frequency counts and Percentages as well as Multiple Regression Analysis were used in data analysis. The results were interpreted at .05 level of significance.

Results

1. **Research question 1:** What are the various activities students engage in on the Internet?

From table 1 below, the following were the internet activities engaged in by the students: “chatting” (X= 2.20), “e-mailing” (X= 1.87), “playing games”(X= 1.89), “educational use of the internet (X = 2.76), “surfing for fun”(X=1.81), “accessing entertainment sites” (X= 1.90) , “visiting music sites” (X= 1.81), “reading news” (X= 2.01) and “informational use of the internet” (X = 2.46).

Table 1: Activities Students Engage in on the internet.

I visit the internet primarily :	140 (28.0%)	86 (17.2%)	63 (12.6%)	211 (42.2%)	2.20	1.16
a. To chat						
b. To E-mail/Instant message/Blog	79 (15.8%)	66 (13.2%)	78 (15.6%)	277 (55.4%)	1.87	1.11
c. To play games	75 (15.0%)	70 (14.0%)	84 (16.8%)	271 (54.2%)	1.89	1.11
d. For educational purposes	177 (35.4%)	169 (33.8%)	21 (2.2%)	133 (26.6%)	2.76	1.18
e. To surf for fun	97 (19.4%)	55 (11.0%)	48 (9.6%)	300 (60.0%)	1.81	1.10
f. To access entertainment sites	107 (21.4%)	59 (11.8%)	58 (11.6%)	276 (55.2%)	1.90	1.11
g. To visit music sites	94 (18.8%)	52 (10.4%)	63 (12.6%)	291 (58.2%)	1.81	1.07
h. To read news	117 (23.4%)	74 (14.8%)	47 (9.4%)	262 (52.4%)	2.01	1.16
i. To get information	176 (35.2%)	120 (24.0%)	18 X= (3.6%)	186 (37.2%)	2.46	1.21

Research question 2: What are the relative contributions of internet behaviours to reading proficiency?

Table 2 below revealed that the predictor variables when held constant made different contributions to the dependent variable. The relative contribution of each internet behaviour to reading proficiency were: “to chat” $\beta = .097$, $t = 1.832$, $p > .05$; “to e-mail” $\beta = -.188$, $t = -3.393$, $p < .05$; “to play games” $\beta = .048$, $t = .922$, $p > .05$; “for educational purposes” $\beta = .001$, $t = .019$, $p > .05$; “to surf for fun” $\beta = -.010$, $t = -.162$, $p > .05$; “to access entertainment sites” $\beta = .044$, $t = .723$, $p > .05$; “to visit music sites” $\beta = .005$, $t = .080$, $p > .05$; “to read news” $\beta = -.088$, $t = -1.266$, $p > .05$ and “to get information” $\beta = .037$, $t = .715$, $p > .05$. E-mailing was the only internet behaviour that had significant contribution to reading proficiency.

Table 2: Relative contribution of internet behaviours to reading proficiency

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	46.843	2.175		21.536	.000
I visit the internet primarily to chat	1.243	.678	.097	1.832	.068
To E-mail	-2.522	.743	-.188	-3.393	.001
To play games	.634	.688	.048	.922	.357
For educational purposes	1.219E-02	.635	.001	.019	.985
To surf for fun	-.132	.816	-.010	-.162	.871
To access entertainment	.587	.812	.044	.723	.470
To visit music sites	6.855E-02	.861	.005	.080	.937
To read news	-1.119	.884	-.088	-1.266	.206
To get information	.450	.629	.037	.715	.475

Research question 3: What is the composite contribution of these internet behaviours to their reading proficiency?

Table 3: Model Summary

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.190	.036	.018	14.70

Table 4 Multiple Regression Analysis of Composite contribution of internet behaviour

Model	Sum of Squares	Df	Mean Square	F	Sig.
1	3958.554	9	439.839	2.036	.034*
Regression	105657.72	489	216.069		
Residual	109616.28	498			
Total					

* Significant at $p < .05$.

Tables 3 and 4 present Model Summary and Multiple Regression Analysis of composite contribution of internet behaviour. From table 3, the multiple R = .190(19%) and Adjusted R squared = .018(1.8%). These show that chatting, e-mailing, playing games, educational use of the internet, surfing for fun, accessing entertainment sites, visiting music sites, reading news and getting information contributed 1.8% of the total variance observed in students' reading proficiency. This observation was statistically significant, $F_{(9,489)} = 2.036$, $p < .05$.

Research question 4: Which of the internet behaviours would predict students' proficiency in reading?

Table 4 revealed that, out of the nine predictors, it was only the item which stated "I visit the internet primarily to e-mail" that contributed significantly to the prediction of students' reading proficiency, $\beta = -.188$, $t = -3.393$, $p < .05$ and as such is the only factor that will predict their reading proficiency.

Discussion of Findings

The findings revealed that students use the internet to chat, e-mail, play games, for educational purposes, surf for fun, access entertainment sites, visit music sites, read news and get information. The use of internet for educational purposes, informational use, Chatting and entertainment purposes were the most common uses of the internet by the students. These results corroborate the findings of Shemla et al. (1999) and Nachmias et al.(2000) who reported that students used the internet for communication purposes, Chatting, information related to their hobbies and general information. This is also consistent with the reports of Bober (2005), Nielson (2000) and Kumar and Kaur (2006) that students used the internet for academic-related information and school work such as assignments.

The findings also revealed that only the internet behaviour of e-mailing could predict reading proficiency as it dominated all other internet behaviour predictors in each level of significance on the dependent variable of reading proficiency. A likely reason for this is that students prefer to surf irrelevant websites, engage in chat room gossip, converse with internet pen-pals and play games at the cost of productive activities (reading). Reading, like all other acquired, developed skill, flourishes with practice. Some research suggests that students read differently when they determine their own tasks on line (Bilal, 2001; Eagleton and Dobler, 2007; Leu et al, 2007).

Conclusion

It can be concluded from this study that browsing internets is not inimical to students' academic progress in general and reading proficiency in particular. Rather if properly channelled it can facilitate efficient reading.

Recommendations

Based on the findings of this study, it is recommended that teachers should help channel students to internet behaviours that can enhance reading proficiency. Language teachers can exploit e-mail as a

resource for enhancing reading by giving assignments via e-mail. The use of e-mails should be introduced to all students. On-line reading as well as print reading should be encouraged because the amount of time spent on reading enhances proficiency. Internet literacy should be encouraged by government, as it has serious implications for the advancement of education in Nigeria. Nigeria cannot afford to lag behind in this area of instructional technology. Efforts should be made to ensure that internet facilities are made easily accessible and available in schools, public libraries and homes.

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