

Short Research Article

IMPACT OF INFORMATION SOURCES AVAILABILITY ON ACADEMICS PERFORMANCE OF STUDENTS IN SENIOR SECONDARY SCHOOL.

Abstract:

This study investigated the impact of information sources availability on academic performance of secondary school students using a descriptive survey design. One hundred and fifty senior secondary school students were randomly selected from three secondary schools in Osogbo. Data was collected using a self-structured questionnaire that covers all the variables under study. Percentage was used to answer the research questions while regression analysis was used to test the hypotheses postulated. The findings indicated that information sources (library information, teachers information and textbook information) has significant influence on academics performance of student. The result of the hypotheses showed significant relationship between the independent variables (information sources) and dependent variable (academic performance). The value of F-statistic was 627.253 with $p < 0.05$ shows that the overall model was statistically significant. The result revealed that library information, Teachers information and Textbook information have significant combined impact on academics performance of selected senior secondary school in Osun State. It recommended that The school administration should maintain the existing information sources they have and make request to the government for the provisions of this sources.

Keywords: information sources, academic performance and secondary school students

1.1 Background of the Study

In educational institutions, success is measured by academic performance or how well student performs. The level and quality of a student's academic performance depends on a number of factors like grades, attendance, standardized test and extracurricular activities Mushtaq& Khan (2012). Academic competence is a multidimensional construct composed of the skills, attitudes, and behaviours of a learner which contribute to academic success in the classroom Demaray& Elliott (1998). Crosne and Elder (2004) cited in Ali, Haider, Munir, Khanand Ahmed (2013) observed that provision of facilities and availability of resources in schools are important structural components of the school and that access to information resources such as computers can enhance students' academic performance and educational attainment. Academic performance is the demonstration of a student's level of competence and mastery of a subject Anderson & Krathwohl (2001). For a student to perform well and be competent in the field of study, it is important that the student make use of relevant and pertinent information that will enhance the performance.

Meadow and Yuan (1997) noted that information is a message that changes the recipient's knowledge base, that is, information significantly enhances the existing knowledge of the users. Information as a concept has no unified definition as there are many authors and writers with different perception and opinion on what information is. Information can also be seen as all that contributes to increasing one's general awareness, understanding or consciousness of a given topic. Similarly, Boakye (2002) also defines it as some knowledge received or acquired by individual, a group, a society or a nation about an event, incidence or occurrence that contributes to the general awareness, understanding and level of consciousness of the activity in question. Ajewole (2001) categorized definitions given for information by different authors into three: the scientific and technical information (STI) which includes information found

within the scientific and technological fields or domain that is mostly generated from research activities. Nwagwu (2006) sees STI as all information developed from research undertakings in all science and technology fields. The second category is the socio-cultural which perceived information as knowledge which when transferred or disseminated, aids diverse human activities. Lastly, information was perceived as a resource. It is believed to serve as an important link between a variety of activities, piece or material and servicing individuals, institutions and the society at large. A number of authors such as Kamba (2009) & Ugnagha and Samuel, agreed that information plays a vital role in any development process especially by improving the general wellbeing of those that utilize it, thus implying that lack of information can jeopardize any developmental efforts or process. On the other hand, scholars such as Boon (1994) argued that information is power but remains worthless in any problem solving and decision making capacity except when used or applied effectively. Therefore utilization of information can improve the academic performance of students. Also the research work of Osunade, Ojo and Ahisu (2009) cited in Ogedengbe (2012) showed a significant difference in academic performance between those who made use of a source of information (internet) and those who did not.

This study has adopted the last category that sees information as resources needed to enhance academic performance. In educational setting, aside from the human resources, books and other reading materials are considered to be another major sources being utilized for advancing and enhancing academic performance. Use of the library has also been found to positively affected the student performance (Young, 1999 cited in Mushtaq & Khan (2012)

Kimeu, Tanui & Ronoh (2015) concluded from the study on the influence of instructional resources on students' academic performance that students' academic performance depended

on teachers' reference books and guides, students' and teachers textbooks, charts, chalk boards and chalk, classrooms, and laboratory apparatus and chemicals as teaching and learning materials. This study has looked into kind of information sources available to secondary school students in Oyo state and how often are these sources are been used to influence the academic performance of students. Information use is implicitly included in several information behaviour either based on cognitive or constructionist approaches. Information use is part of information seeking behaviour determined as physical and cognitive activities working on the inclusion of the fund information into the existing knowledge base of human Wilson (2000).

Based on analysis of peer-reviewed papers in library and information science, Keri conceptualizes information use in terms of the outcomes of information. This is utilization of these outcomes to settle and satisfy the user's need. Two categories of outcome represent the use; the active outcomes which are internalization of information and canvasses use and the effects passive outcomes which are the effects of information in the activity. Information use in organization is explained by Choo (1996) as a dynamic, interactive social process of inquiry that may result in construction of meaning or making decisions. This study asked the following question: how available are information sources in secondary schools? how accessible are the information sources and how much of the information sources are being used by secondary school students?

While acknowledging the fact that several studies have been carried out on the various variable that can affect students' academic performance little or no work has been done on the perceived effect of information sources availability and use on academic performance of secondary school students, therefore, this study has assessed the perception of secondary

school students on how information sources availability and use influence their academic performance.

1.2 Research Objectives

The main objective of this study is to examine the impact of information sources availability on academics performance of students in Senior Secondary School in Osun State. The specific objectives of this study are to

1. Ascertain the impact of library information source on academics performance of senior secondary school students in Osun state.
2. Examine the impact of teacher's information source on academics performance of senior secondary school students in Osun state.
3. Evaluate the impact of textbook information source on academics performance of senior secondary school students in Osun state.
4. Evaluate the combine impact of information sources on academics performance of senior secondary school students in Osun state.

1.5 Research Hypotheses

Based on the objectives stated above, the following hypotheses were tested in this study.

- H₀₁:** Library information source has no significant impact on academics performance of senior secondary school students in Osun state.
- H₀₂:** Teacher's information source has no significant impact on academics performance of senior secondary school students in Osun state.
- H₀₃:** Textbook information source has no significant impact on academics performance of senior secondary school students in Osun state.

H₀₄: Information sources has no significant impact on academics performance of senior secondary school students in Osun state.

2.1 Literature Review

The Internet is an inseparable part of today's educational system. The academic increasingly depends on the Internet for educational purposes (Gupta & Sanocki, 2002). It was observed recently that majority of academic and research institutions provide Internet service to students, teachers, and researchers (Kaur, 2008). Advancement in technology is also another factor that brings major impacts on education (Underwood 2003). Many tertiary institutions around the world are expanding their investment in information technology (IT), especially the Internet, and are actively promoting Internet usage in tertiary education (Al-Nuaimy, Zhang & Noble, 2001; Gupta & Sanocki, 2002).

The use of the Internet for learning is seen as a means to improve accessibility, efficiency and quality of learning by facilitating access to resources and service as well as remote exchanges and collaboration (Kamba 2009). Within the Nigerian context, many people have attributed students' non-challant attitude to reading which culminates in mass failure of students in examinations to the use of the Internet (Alakpudia 2010). Internet's seemingly infinite information offers access to up-to-date research reports and global knowledge so it has become an important component of electronic services in academic institutions. Therefore, the Internet has become a valuable tool for learning, teaching and research (including collaborative research) in Nigeria (Nwokedi, 2007).

Ogedebe (2012) in his study found that 79% of the respondents accepted that their academic performance has been improved by using the internet, while 13% believed otherwise, 8% made no response to that question. The study also revealed that 65% of the respondents were computer

literate, while 29% were not, 6% of the respondents neglected the question. The study further revealed that 8% of the respondents believed that their GPA has been improved remarkably as a result of the internet, 6% agreed that their GPA has been declining, 28% responded that it aids them in preparing better for CA and semester examination while 22% were indifferent about the options and therefore did not respond.

In the study of **Aqil and Ahmad** (2011) it was found that 47 (52.64%) users rated the utility of Internet based information services as average for their academic purposes, while 36 (39.56%) users rated the Internet as high. Moreover, 6 (6.59%) and 2 (2.19%) rated it as low and very low respectively. **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 allows students from all disciplines to source for relevant information. Microphone members of the group can actually see and hear each other. **Gudimani and Mulimani** (2008) in their study revealed that majority of the respondents (42) 46.46% use the internet for Online database, (34) 37.78% use internet for electronic journals, (26) 26.89% use internet web based OPAC, (12) 13.33% use the internet for published files, (8) 8.88% respondents use the internet discussion forum.

A study by **Udende and Azeez** (2010) reported that 311 (80.8%) of Students of the University of Ilorin, admitted that they mostly use the internet for academic purpose, while 54 (14%) used it mostly for mails, 19 (4.9%) used it most for fun, none for others. 100 (26%) of the respondents agreed that they used the internet daily, 178(46.2%) used the internet on weekly basis, while 107(27.8) used the facility ones in a while. The study also revealed that 38 (9.9%) respondents were of the opinion that the internet does not contribute towards their academic excellence,

whereas as many as 347 (90.1%) held a contrary view that the internet help them in solving their academic problems.

3.1. Design

A descriptive survey design was used to examine the impact of information sources and use one academic performance of secondary school students.

3.2. Participants

Participants for the study include two hundred and eight (150) secondary school students randomly selected from 3 secondary schools in the South-west Local Government, Osun State.

3.3. Instruments

A self-structured questionnaire was used to collect data for this study. The questionnaire consists of four main sections **A and B**. They include questions on demographic data, types of information sources available to students, use of information, and the perceived impact of the of information on their academic performance. The participants responded to the set of items in the questionnaire by expressing their level of agreement or disagreement based on a 5-point Likert Scale. A test-retest reliability of two weeks interval was conducted and Cronbach's alpha revealed a reliability score of .82.

3.4. Method of Data Analysis

The data collected from the questionnaire was analyzed and processed using percentage to ascertain the availability of the sources and how much of the information sources is used while Pearson product moment correlation co-efficient and multiple regressions were used to assess the relationship between the independent variables (information sources) and dependent variable (academic performance).

4.1 Analysis of Demographic Characteristics

In this section, the study presents the general information of the respondents since it forms the basis under which the study can rightfully access the relevant information. The demographic information captured includes issues such as age, gender, marital status and religious affiliation. Analysis of demographic variables was done using percentages. Table 4.1 presents the information.

Table 4.1: Demographic Characteristics of Respondents

Variables	Characteristics	Frequency	Percentages
Age	12 -15 years	67	44.67%
	16-20years	53	35.33%
	Above 20 years	30	20%
Gender	Male	85	56.67%
	Female	65	43.33%
Religious Affiliation	Islam	58	38.67%
	Christianity	77	51.33%
	African traditional religion	15	10%

Source: Field Survey, 2019

The data in table 4.1 indicate that 44.67% of survey respondents are between 12-15 years, 35.33% of the respondents are between 16-20 years. The remaining 20% respondents are between above 21 years and above of age. As regards gender, 85 of the respondents representing 56.67% were male students and 65 respondents representing 43.33% were female respondents. In respect to religion affiliation, 58(38.67%) practiced Islam, 77(51.33%) practiced Christianity, while 15(10%) of the respondents practiced African traditional religion. Thus, majority of the respondents are Christians followed by those who are Muslims.

Restatement of Hypothesis One

H₀₁:library information's has no significant impact on academics performance of students in senior secondary school. .

In order to test the hypothesis, simple linear regression analysis was used. The data for library information and academics performance were created by summing responses of all items for each of the variable. The results of the regression are presented in Tables 4.2.

Table 4.2: Summary of Regression Analysis of impact of library information on academics performance

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.518	.857		.605	.545
Library Information	.960	.036	.786	27.046	.000
R = .786; R ² = .618; F _{1/148} = 731.475					
a. Dependent Variable: Academics Performance					

Source: Researcher's Field Results, 2019

Interpretation

Table 4.2 presents result of regression analysis of impact of library information on academics performance of students in senior secondary school. The results revealed that library information have positive and significant impact on academics performance of senior secondary school of selected secondary school in Osun State ($\beta = .960$, $t = 27.046$, $p = .000$). The result shows that for one unit change in library information, academic performance increases by 96%. Furthermore, the regression results in Table 4.2 show that the relationship between library information and academics performance was positive and significant ($R = .786$, $F_{(1/148)} = 731.475$, $p < 0.05$). With $R^2 = .618$, the model implies that about 61.8% variation in academics performance of selected school is explained by variations in library information. This means that library information positively predicts academics performance of selected school. However, the model failed to explain 38.2% of the variation, meaning that there are other factors associated with academics performance which were not fitted in the model. Since $p\text{-value} < 0.05$, the null hypothesis (H_{01}) which states that library information has no significant impact on academics performance in selected senior secondary school in Osun State is hereby rejected.

Restatement of Hypothesis Two

H_{01} : Teachers information's has no significant impact on academics performance of students in senior secondary school. .

In order to test the hypothesis, simple linear regression analysis was used. The data for Teachers information and academics performance were created by summing responses of all items for each of the variable. The results of the regression are presented in Tables 4.3.

Table 4.3: Summary of Regression Analysis of impact of Teachers Information on Academics Performance

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.958	.606		4.880	.000
	Teachers Information	.845	.026	.838	32.704	.000
R = .838; $R^2 = .702$; $F_{(1,453)} = 1069.578$						
a. Dependent Variable: Academics Performance						

Source: Researcher's Field Results, 2019

Interpretation

Table 4.2 presents result of regression analysis of impact of library information on academics performance of students in senior secondary school. The results revealed that library information have positive and significant impact on academics performance of senior secondary school of selected secondary school in Osun State ($\beta = .845$, $t = 32.704$, $p = .000$). The result shows that for one unit change in teacher information, academic performance increases by 85%. Furthermore, the regression results in Table 4.2 show that the relationship between library information and academics performance was positive and significant ($R = .838$, $F_{(1/148)} = 1069.578$, $p < 0.05$). With $R^2 = .702$, the model implies that about 70.2% variation in academics performance of selected school is explained by variations in teachers information. This means that teacher's information positively predicts academics performance of selected school. However, the model failed to explain 29.8% of the variation, meaning that there are other factors associated with academics performance which were not fitted in the model. Since $p\text{-value} <$

0.05, the null hypothesis (H_{02}) which states that teacher's information has no significant impact on academics performance in selected senior secondary school in Osun State is hereby rejected.

Restatement of Hypothesis Three

H_{03} : Textbook information's has no significant impact on academics performance of students in senior secondary school. In order to test the hypothesis, simple linear regression analysis was used. The data for Textbook information and academics performance were created by summing responses of all items for each of the variable. The results of the regression are presented in Tables 4.4.

Table 4.4: Summary of Regression Analysis of impact of Textbook information on Academics performance

Coefficients						
Model		Unstandardized		Standardized	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.577	.586		7.809	.000
	Textbook information	.804	.025	.836	32.407	.000
R = .836; $R^2 = .699$; $F_{1/148} = 1050.203$						
a. Dependent Variable: Academics Performance						

Source: Researcher's Field Results, 2019

Interpretation

Table 4.2 presents result of regression analysis of impact of Textbook information on academics performance of students in senior secondary school. The results revealed that Textbook information have positive and significant impact on academics performance of senior secondary school of selected secondary school in Osun State ($\beta = .804$, $t = 32.407$, $p = .000$). The result shows that for one unit change in Textbook information, academic performance increases by 80%. Furthermore, the regression results in Table 4.4 show that the relationship between

textbook information and academics performance was positive and significant ($R = .836$, $F_{(1/148)} = 1050.203$, $p < 0.05$). With $R^2 = .699$, the model implies that about 70% variation in academics performance of selected school is explained by variations in teachers information. This means that textbook information positively predicts academics performance of selected school. However, the model failed to explain 30% of the variation, meaning that there are other factors associated with academics performance which were not fitted in the model. Since $p\text{-value} < 0.05$, the null hypothesis (H_{03}) which states that textbook information has no significant impact on academics performance in selected senior secondary school in Osun State is hereby rejected.

Restatement of Hypothesis Four

H_{04} : There is no combine impact of library information, teacher's information and textbook information on academics performance of students of selected senior secondary school in Osun State.

To test hypothesis four, the researcher used multiple regression analysis. Questions related to library information, teachers information and textbook were combined independently. Questions related academics performances were combined. The results of the regression are presented in Tables 4.5.

Table 4.5: Summary of Multiple Linear Regression Analysis of impact library information, Teachers information and Textbook information on Academics performance.

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	68.055	5.757		11.822	.000
Library information	.510	.096	.280	5.311	.000
Teachers Information	.534	.085	.325	6.272	.000
Textbook Information	.740	.155	.226	4.763	.000
$R = 0.780$; $R^2 = 0.711$; Adj. $R^2 = .683$; $F(2,146) = 627.253$					
a. Dependent Variable: Academics Performance					

Source: Researcher's Field Results, 2019

Interpretation

According to the results in Table 4.5, the R value for the overall relationship of **library information, Teachers information, Textbook information and Academics performance** of selected companies in Ogun State was .780 meaning that there is a strong relationship between **library information, Teachers information, Textbook information and Academics performance** of selected school in Osun State. Furthermore, the value of coefficient of determination (R^2) was 0.683, implies that 68.3% variation of the academic performance is due to the variations (improvement) in **library information, Teachers information and Textbook information**. Also, the value of F-statistic was 627.253 with $p < 0.05$. This shows that the overall model was statistically significant. The result implies that **library information, Teachers information and Textbook information** have significant combined impact on academics performance of selected senior secondary school in Osun State. Based on this findings, the null hypothesis (H_{04}) which states that there is no combine impact of **library information, Teachers information and Textbook information** on academics performance of selected schools in Osun State is hereby rejected. Therefore, it can be concluded that **library information, Teachers information and Textbook information** have significant combine impact on academics performance of selected school in Osun State.

Consequently, in Table 4.5, the beta coefficients indicated that how and to what extent product packaging, that is, colour packaging, label packaging, font style packaging and wrapper packaging influence consumer purchase decision of selected fast moving consumer goods (FMCGs). The results show that font textbook information ($B = .740$, $t=4.763$, $p<0.05$) and teacher information ($B=.534$, $t=6.272$, $p<0.05$) and library information ($B =.510$, $t=5.311$,

$p < 0.05$) have a relatively lower significant impact on academics performance of selected schools in Osun State.

4.4 Summary of Hypotheses Testing

This section present the summary of hypotheses tested for this study. Five hypotheses were tested using various statistical techniques. The findings from the analysis and interpretations of results are presented in Table 4.6.

Table 4.6: Summary Table of Hypotheses Tested

S/N	Statement of Hypotheses	Remarks
1.	H₀₁: Library information source has no significant impact on academics performance of senior secondary school students in Osun state.	Rejected
2.	H₀₂: Teacher's information source has no significant impact on academics performance of senior secondary school students in Osun state.	Rejected
3.	H₀₃: Textbook information source has no significant impact on academics performance of senior secondary school students in Osun state.	Rejected
4.	H₀₄: Information sources has no significant impact on academics performance of senior secondary school students in Osun state.	Rejected

Source: Researchers Findings, 2018

5.1 Conclusion and Recommendations

This study examine the impact of information sources on academics performance among secondary school students in secondary schools in South-west Local Government, Osun State, Nigeria. Based on the analysis of the study it can concluded thatlibrary information, Teachers information and Textbook information have significant impact on academics performance of selected senior secondary school in Osun State.Inadequate information sources especially library and internet facilities were also observed in this study and therefore impact the academic performance of the students understudy. The result of this study has implication for the government, school administration, teachers and counselors. Therefore the following are recommended:

- The government should make adequate provision of sources of information especially the ones that are germane to the improvement of students' academic performance such as the library with current and useful books, internet access, etc. and also employ school counselors and post them to secondary school.
- The school administration should maintain the existing information sources they have and make request to the government for the provisions of this sources.
- The teachers counsel and encourage the students to make use of the available sources.
- The school counselors should provide educational information services to students through orientation, group and individual counseling. Counseling them on the need to make good use of the existing facilities.

References

- Ajewole, B. (2001). Records and information resource management in the public service: A theoretical and practical framework. Lagos: The Administrative Staff College of Nigeria (ASCON):24-28.
- Ali, S., Haider, Z., Munir, F., Khan, H., and Ahmed, A. (2013). Factors Contributing to the Students Academic Performance: A Case Study of Islamia University Sub-Campus. *American Journal of Educational Research*. 1(8), 283-289.
- Anderson, L. W., & Krathwohl, D. R. (2001). A Taxonomy for learning, teaching, and assessing: A Revision of Bloom's Taxonomy of educational objectives. London: Longman.
- Boon, J.A (1992). Information and Development: some reasons for failures. The Information Society: *An International Journal*. 8(4), 227-241.
- Boakye J. (2002). Information Provision in Rural Communities in Ghana: Ashanti Region. *Ghana Library Journal*. 5(8)
- Choo, C.W. (1996). The Knowing Organisation: How organizations use information to construct meaning, create knowledge and make decisions. *International Journal of Information Management*. 16(5) 329-340.
- Demaray, M. K., & Elliott, S. N. (1998). Teachers' judgments of students' academic functioning: A comparison of actual and predicted performances. *School Psychology Quarterly*, 13, 8-24.
- Kamba M.A.(2009). Access to Information: The Dilemma for Rural Community Development.
- Kimeu, R.M., Tanui, E. & Ronoh, A. (2015). Influence of instructional resources on secondary school students' academic performance in Makueni County, Kenya. *International Journal of Scientific Research and Innovative Technology* 2 (1), 70-81.

- Meadow, C. T. & Yuan, W. (1997). Measuring the impact of information: defining the concepts. *Information Processing and Management*, 33(6). 697-714.
- Mushtaq, I. & Khan, S. N. (2012). Factors Affecting Students' Academic Performance. *Global Journal of Management and Business Research*, 12 (9), 17-22. Retrieved on October 2015.
- Nwagwu, W.E (2006). Integrating Information and Communication Technologies (ICT) into the Globalisation Process of poor Developing Countries. *Information Development*. 22(3), 167-179.
- Ogedengbe, P.M. (2012). Internet usage and students' academic performance in Nigeria tertiary institutions: a case study of University of Maiduguri. *Academic Research International* 2(3), 334-343.
- Wilson, T.D. (2000). On User Studies and Information Needs. *Journal of Documentation*. 37(12), 3-15.
- Gupta & Sanocki (2002). Asking the right question: What does research tell us about technology and higher learning in change. *The Magazine of Higher Learning* 3 (6).20-27.
- Underwood T. (2003). Effects of excessive use on undergraduates students in Pakistan. *Cyber Psychology and Behaviour*. 2 (12) 12-23
- Al-Nuaimy, Zhang & Noble (2001). A survey of Internet access and usage among undergraduates in an African university. *The International Information and Library Review* 38.(4) 13-23

Kamba, M.A. (2009). The changing role of researchers in Nigeria: The Internet as an alternative future to modernity. Library Philosophy and Practice. Available:

<http://unllib.unl.edu/LPP/kamba.htm>

Alakpodia. O. N (2010). The use of internet skills among library and information students: The experience of Delta State University, Abraka. Information Impact: *Journal of Information and Knowledge Management*. 1 (2) 55-50

Ogedebe P.M (2012). Internet usage and students' academic performance in Nigeria tertiary institution: A case study of University of Maiduguri. Academic research 2 (3)1-10

Agil, M. & Ahmad .P. (2011). Use of the internet by research scholars and Post Graduate Students of the Science Faculty of Aligarh Muslim University. Library philosophy and practice.

Gudimani&Mulimani (2008). Usage of internet by students and Research Scholars of Karnataka University Library: A survey. Retrieved May 2012 from www.Internationalcaliber.com

Udende .P. &Azeez, A.L (2010). Internet access and use among students of the University of Ilorin, Nigeria. Journal of Communication and Media Research, 2 (1) 33 – 42