

## STUDENTS' USE OF SEARCH ENGINES AS CORRELATE OF STUDENTS ACADEMIC PERFORMANCE IN SENIOR SECONDARY SCHOOLS IN OGIDI EDUCATION ZONE

By

**Onyekwelu Raphael Azubuike, PhD.**

Email: zubisogbuefi@yahoo.com

Department of Educational Foundations, Faculty of Education, Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus, Anambra State, Nigeria

### Abstract

*The study investigated the relationship between students' use of search engines and academic performance of senior secondary school students in Ogidi Education Zone. One research question and one hypothesis guided the study. The correlation research design was adopted for the study. The population of the study comprised 8,769 SS3 students in the 2023/2024 academic session. The sample of the study comprised 260 SS3 students in the 2023/2024 academic session. The instrument for data collection was a question titled "Students Use of Search Engine Questionnaire (SUSEQ)" It contains 10 items on students use of search engines and Students' Academic Performance Scores (SAPS). The test of reliability of the instrument using Cronbach Alpha yielded reliability co-efficient of 0.86 for internal consistency. The Pearson Product Moment Correlation Coefficient and simple regression analysis were used to analyze data for the study. The findings of the study revealed that there is a very high positive relationship between use of search engines and academic performance of senior secondary school students in Ogidi Education Zone. Findings further showed that a significant relationship exist between search engines and academic performance of senior secondary school students in Ogidi Education Zone. Based on these findings, the researcher recommended that among others that principals of secondary schools should prioritize initiatives aimed at enhancing students' digital literacy skills, particularly in utilizing search engines effectively for academic purposes.*

**Keywords:** Search Engines, Academic Performance, Students, Secondary School, Students

### Introduction

Education is critical to both individual and societal growth. It serves as the foundation for human development, societal advancement, and economic prosperity. Education instills values such as discipline, honesty, and empathy, all of which are

necessary for the development of harmonious relationships and a cohesive community. Formal education in Nigeria takes place at the primary, secondary and tertiary levels. The study will specifically focus on secondary education.

Secondary education is an important aspect of education since it serves as a foundation for building a knowledge-driven economy and encouraging the growth of a thriving society. The FRN (2013) policy stated that the fundamental goals of secondary school education are to prepare students for future academic pursuits and practical involvement in society. It also emphasises the significance of raising patriotic persons who can contribute to societal progress and carry out their civic obligations. Realizing these goals is manifested on the abilities of secondary school students to acquire the needed knowledge, skills and experiences needed to pursue higher education and function effectively as responsible citizens in the society. The success or failure of the realization of these goals is measured by students' academic performance. Academic performance of students is the yardstick for evaluating the educational quality of any nation.

Academic performance is defined as the information and skills acquired in academic disciplines, which are typically indicated by test scores, teacher grades, or both. Emeasoba and Ugwuoke (2019) defined academic performance is essential since it is used to select, advance, or recognise students in various areas. Academic performance refers to the outcomes that demonstrate how effective a person was in achieving specified goals that were the major focus of instructional activities in educational settings. Akinola and Oredein (2021) defined academic performance as the

successful completion of educational goals, such as obtaining a bachelor's degree, performing well in examinations and other forms of assessments commonly used to measure academic progress. Onwugbufo and Udebuana (2021) defined academic performance as the knowledge or skills acquired in school subjects, evaluated by test results or grades awarded by teachers. Quadri (2020) noted that there is a link between improvement in the academic performance of students and students' use of internet tools like search engines.

A search engine is a web-based application that allows users to find information on the World Wide Web. Search engines are programmes that search documents for certain keywords and provide a list of documents that contain the keywords. A search engine is a software program or script that searches documents and files for keywords and delivers the results of any files that contain those keywords. It is a computer program that searches the Internet for information; computer software that searches data (like text or a database) for specific information; and a website on the Internet. A search engine is a broad category of software. Muhammad and Usman (2023) averred that examples of search engines systems are Google, Bing, and Yahoo!. Google search is the most popular service for searching for information on the Internet nowadays (Ugwulebo & Okoro, 2016). Search engines are widely used by students for academic work (Ukwetang et al., 2021). The information obtained through search engines varies depending on the student's

academic level and the significance of the project's content (Tezer & Soykan, 2017). This enables students to access the specific information they need while excluding irrelevant resources. One of the key ways search engines help students attain academic success is by making research easier. Search engines can help students identify relevant and trustworthy materials for their assignments, projects and research papers (Fernández-Gutiérrez et al., 2020; Madu et al. 2018). Students may easily access scholarly papers, books, academic journals and other relevant materials by entering particular keywords relating to their area of interest (Onwugbufo & Udebuana, 2021). Search engines allow students to access a wide range of information from numerous sources, assisting them in successfully gathering and analyzing data (Joel et al., 2020). The researcher wonders if search engines have any relationship with students' academic performance among public secondary school students in Anambra State. Given the fact that many students in senior secondary schools move around and outside the school premises with mobile phones, the researcher wonders if these students use the tools like search engines for academic purposes. The researcher therefore sought to empirically determine the correlation between students' use of search engines and academic performance of senior secondary school students in Ogidi Education Zone.

### Statement of the Problem

The widespread usage of internet technologies among senior secondary school pupils has raised concerns, notably over their possible influence on academic achievement. In today's digital era, senior secondary school students are frequently engrossed in a variety of online activities, ranging from social media to gaming, resulting in what may be termed as a technological addiction. This addiction has prompted concerns regarding its impact on students' academic performance. Observations by the researcher indicate that many students appear to prioritise non-academic use of internet technologies to academic use. Despite having a variety of knowledge at their fingertips, it appears that the majority of students are not fully using these tools for academic progress. This raises an intriguing question: Could inefficient use of online technologies, such as search engines, be leading to a drop in academic performance among senior secondary school students in Ogidi Education Zone?

### Purpose of the Study

The main purpose of the study was to investigate the relationship between students' use of search engines and academic performance of senior secondary school students in Ogidi Education Zone.

## Research Questions

1. What is the relationship between students' use of search engines and academic performance of senior secondary school students in Ogidi Education Zone?

## Hypothesis

The hypothesis was tested at 0.05 level of significance:

1. There is no significant relationship between students' use of search engines and academic performance of senior secondary school students in Ogidi Education Zone.

## Methodology

The study adopted the correlational research design. The study was conducted in Ogidi education zone of Anambra State. The population of the study comprised 8,769 SS3 students in the 2023/2024 academic session. The sample of the study comprised 260 SS3 students in the 2023/2024 academic session. Purposive and simple random sampling technique was used to determine the sample size for the study. The researcher purposive selected two Local Government Area (LGA); Idemili North (1,780) and Idemili South (820) amounting to 2600 students. The researcher then sampled 10% of students in each LGA. This amounted to a sample size of 260 students.

The instrument for data collection was a structured questionnaire titled "Students Use of Search Engine Questionnaire (SUSEQ)". It contains 10 items on students use of search engines. The instrument was structured on a 4-point rating scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). Furthermore, Students' Academic Performance Scores (SAPS)' which is SS 3 students' scores in English Language and Mathematics in the 2023/2024 academic session, was collected from Recording Department, Post Primary Schools Service Commission (PPSSC), Awka Anambra State (2022). English Language and Mathematics was used for this study because it is a general and compulsory subject that determines the levels of students' academic performance. The instrument was validated by three experts in the Department of Educational Foundations, Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus. The instrument was administered on 20 SS3 in public secondary schools in Awka Education Zone. The test of reliability of the instrument yielded reliability co-efficient of 0.86 for internal consistency. The instrument was administered by the researcher with the help of three research assistants. The instrument was administered to the respondents in their classrooms. Out of 260 copies of questionnaire administered, 216 copies were retrieved in good condition. This amounted to 83% questionnaire return

rate. The Pearson Product Moment Correlation Coefficient was used to answer the research questions. In testing the null hypotheses, simple regression analysis was employed to determine the significant correlation between the variable of interest. In interpreting the

values of the null hypotheses, when p-value is less than or equal to .05 ( $p \leq .05$ ), the null hypothesis was rejected. On the other hand, when the p-value is greater than .05 ( $p > .05$ ), the null hypothesis was not rejected.

## Results

**Research Question:** What is the relationship between students' use of search engines and academic performance of senior secondary school students in Ogidi Education Zone?

**Table 1: Pearson's Correlation between Use of Search Engines and Academic Performance of Senior Secondary School Students**

| Variables             | N   | Use of Search Engines | Academic Performance | Decision                        |
|-----------------------|-----|-----------------------|----------------------|---------------------------------|
| Use of Search Engines | 216 | 1                     | .85**                | Very High Positive relationship |
| Academic Performance  | 216 | .85**                 | 1                    |                                 |

Data in Table 1 reveals that the Pearson's Correlation Coefficient is  $r = 0.85$ . This shows that a very high positive relationship exists between students use of search engines and academic performance. This implies that if students use search engines for their academic works it would positively increase their academic performance. Thus, there is a very high positive relationship between use of search engines and academic performance of senior secondary school students in Ogidi Education Zone.



**Hypothesis:** There is no significant relationship between students' use of search engines and academic performance of senior secondary school students in Ogidi Education Zone.

**Table 2: Analysis of Correlation between Students Use of Search Engines and Academic Performance of Senior Secondary School Students**

| Variables             | N   | Use of Search Engines | Academic Performance | Beta | t-value | P-value | Decision    |
|-----------------------|-----|-----------------------|----------------------|------|---------|---------|-------------|
| Use of Search Engines | 216 | 1                     | .85**                | .612 | 8.325   | 0.000** | Significant |
| Academic Performance  | 216 | .85**                 | 1                    |      |         |         |             |

Data presented on Table 2 show that the t-value is 8.325. Furthermore, the P-value of 0.000 is less than .05 level of significance. The  $\beta$  value of search engines is positive (.612) and P value of 0.000 is less than .05 ( $P < .05$ ) which means that effect of students use of search engines on academic performance in senior secondary schools in Ogidi Education is statistically significant. This means that there is a significant relationship between students' use of search engines and academic performance of senior secondary school students in Ogidi Education Zone. Thus, the null hypothesis was rejected.

## Discussion

The finding of the study revealed that there is a very high positive relationship between students' use of search engines and of senior secondary school students in Ogidi Education Zone. This finding suggested that increased use of search engines among secondary school students in Ogidi Education Zone is associated with improved academic outcomes. This is in line with Bakare and Solomon (2022) who reported that search engines was a major internet resource that influenced students' academic

performance. Onwugbufor and Udebuana (2021) revealed that Google and Google Scholar were found to be the most preferred search engine. Onwugbufor and Udebuana further showed that the students affirmed that the use of internet enabled them to perform research ahead of time, tackle multiple homework, widens the scope of reading and learning, promotes self-learning, encourages and enhances peer learning as well as ameliorates student's examination preparation. This is validated by the hypothesis of the study which revealed a

significant relationship between search engines and academic performance of senior secondary school students in Ogidi Education Zone. This finding suggests that increased use of search engines among secondary school students in Ogidi Education Zone is associated with improved academic performance. This is in consonance with Ukwetang et al. (2021) who reported that search engine has a significant relationship with the academic performance of students.

### Conclusion

Based on the findings of the study, the researcher concludes that students' use of search engines has a positive relationship with academic performance of senior secondary school students in Ogidi Education Zone. The findings highlight the necessity of using online tools like search engines for instructional reasons. Students who use these platforms successfully have better academic performance, indicating that appropriate internet usage practices can help them succeed in school.

### Recommendations

Based on the findings of this study, the researcher proffers the following recommendations:

1. Principals of secondary schools should prioritize initiatives aimed at enhancing students' digital literacy skills, particularly in utilizing search engines effectively for academic purposes. Providing workshops, training sessions, and educational

materials can empower students to leverage online resources to support their learning.

2. Teachers in secondary schools should teach students how to effectively use search engines for academic research and learning. This involves teaching students how to do searches, evaluate information, and verify sources so that they may obtain correct and relevant information.

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