

COMPARATIVE EFFECTS OF USAGE OF MOBILE PHONES ON SENIOR SECONDARY SCHOOLS STUDENT'S ACADEMIC PERFORMANCE IN ILORIN WEST AND SOUTH

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Abstract

This study was set out to examine the effect of usage of mobile phones on Senior SSS academic performance in Ilorin West and South. Two research questions and two null hypotheses were tested. The target population comprised of SSS Students in Ilorin West and South. Simple Random Sampling Techniques was used to sample 100 secondary school students. The instrumentation that was used was a researcher designed questionnaire. The hypotheses were tested by using T-test in each of the hypothesis. The T-test was computed from the mean and standard deviation. The findings of the this study revealed that the effects of mobile phones usage on senior secondary school students academic performance in Ilorin West and South local government area is positive. The finding also revealed that there is no significance difference in the effects of usage of mobile phones on SSS students academic performance in Ilorin West and South local government area based on gender and based on school type. Based on the findings and conclusions of the study, it was recommended that students should be educated on the influence of mobile usage on their academic performance; students should be monitored by teachers and parents on how they use these sites; the students should create a balance between chit-chatting and academic activities, more attention should be devoted to their studies.

Keywords: comparative, effect, usage, mobile phones, academic performance,

Introduction

The increasing integration of mobile phones into daily life has significantly transformed how individuals communicate, access information, and engages with the world around them. Initially developed as tools for basic communication, mobile phones have evolved into multifunctional devices, providing users with internet access, social networking platforms, multimedia entertainment, and educational tools (Chen et al., 2021). While these advancements have brought remarkable convenience and opportunities, they have also raised concerns about their impact on specific social groups, particularly adolescents. Among senior secondary school students, using mobile phones poses unique challenges and opportunities for academic performance.

Adolescents, as active participants in the digital age, are among the largest demographic of mobile phone users globally. In Nigeria, reports indicate that over 70% of teenagers own or have access to mobile phones, a figure that continues to grow annually (Nwosu & Ojiaku, 2020). The ubiquity of mobile phones has altered students' lifestyles, from how they socialize and access learning materials to how they allocate their time for academic and non-academic activities. For many senior secondary school students, mobile phones serve as double-edged swords; they facilitate instant communication and access to educational resources while simultaneously acting as significant sources of distraction through social media, games, and other entertainment applications (Adams & Adamu, 2022).

The context of Ilorin West and South, two urban areas in Kwara State, Nigeria, further underscores the importance of studying the effects of mobile phone usage on academic performance. These regions, characterized by rapid urbanization and increasing technological adoption, house a substantial number of senior secondary schools. While mobile phones have been celebrated for their role in promoting learning through access to educational apps, online tutorials, and digital libraries, they have also been criticized for their potential to impair students' focus and academic achievement. Anecdotal evidence from parents, teachers, and educational stakeholders in these areas suggests a growing concern about students' excessive mobile phone use during study hours and its consequent effect on their academic performance.

Globally, researchers have provided mixed perspectives on the effects of mobile phone usage among adolescents. Studies in developed countries such as the United States, United Kingdom, Japan, China and South Korea have highlighted both positive and negative impacts. On the positive side, mobile phones enhance students' ability to conduct research, collaborate on projects, and access real-time updates on academic content (Park et al., 2020). On the downside, they are frequently associated with distractions, reduced study time, and impaired academic focus due to prolonged engagement with non-educational activities (Samaha & Hawi, 2017). In low-and middle-income countries like Nigeria, the effects of mobile phone usage may differ due to variations in socio-economic conditions, access to technology, and the educational environment. Despite these global insights, few studies have focused on Nigerian contexts, leaving a significant gap in understanding how mobile phone usage specifically affects academic performance among senior secondary school students in Ilorin West and South.

Mobile phones offer a plethora of learning opportunities for students. Digital learning tools, such as educational apps, e-books, and interactive online courses, can transform mobile phones into virtual classrooms. In regions where traditional learning resources are limited, mobile phones can bridge the gap by granting students access to global knowledge repositories (Okafor & Edeh, 2021). Additionally, mobile phones facilitate peer-to-peer communication and collaborative learning, enabling students to form virtual study groups, share resources, and solve academic problems collectively. For example, platforms like WhatsApp and Telegram have become popular for creating class groups where students can share notes, ask questions, and engage in meaningful academic discussions. These positive uses of mobile phones suggest that, when utilized effectively, they can complement traditional educational methods and enhance academic performance.

Conversely, the potential negative effects of mobile phone usage on students' academic performance cannot be overlooked. A growing body of literature emphasises the distractive nature of mobile phones. Students often find themselves spending excessive time on social media platforms such as Instagram, TikTok, Facebook, Twitter, Whatsapp etc. engaging in non-academic activities that take away from study time (Olatunji & Bello, 2019).

Another critical factor influencing the impact of mobile phone usage is parental and school regulation. In some households, parents impose strict rules regarding mobile phone usage, limiting their children's screen time and monitoring their activities. In contrast, others adopt a more lenient approach, allowing unrestricted access to mobile phones. Similarly, schools differ in their policies on mobile phone usage. While some schools in Ilorin West and South prohibit the use of mobile phones during school hours, others permit their use for educational purposes. These varying approaches raise

questions about the effectiveness of such policies in shaping students' academic behaviours and outcomes.

Socio-economic factors also play a role in the dynamics of mobile phone usage among senior secondary school students. In families with higher socio-economic status, students are more likely to own advanced smartphones with access to unlimited internet, enabling them to explore diverse online resources. However, these privileges can also increase the likelihood of exposure to non-educational content. Conversely, students from low-income families may rely on basic mobile phones with limited functionalities, restricting their ability to engage in online learning but also reducing the risk of distraction. These socio-economic disparities highlight the need to contextualize research findings to better understand the unique challenges faced by students in Ilorin West and South.

Furthermore, the role of gender in mobile phone usage patterns warrants attention. Studies have shown that male and female students may use mobile phones differently, with males being more likely to engage in gaming and technology-related activities, while females are more inclined towards social networking and communication (Kaur & Singh, 2018). These differences may influence the extent to which mobile phone usage impacts academic performance. In Ilorin West and South, understanding these gender-specific patterns could provide valuable insights for designing targeted interventions.

Mobile phone usage among senior secondary school students represents a complex phenomenon with both beneficial and detrimental effects on academic performance. The context of Ilorin West and South provides a unique opportunity to explore these dynamics in a rapidly urbanizing setting with diverse socio-economic and educational characteristics. By examining the patterns, impacts, and underlying factors of mobile phone usage, this study aims to contribute to the growing body of knowledge on digital technology and education, offering practical recommendations for students, parents, educators, and policymakers.

Statement of the Problem

The pervasive use of mobile phones among senior secondary school students has become a topic of concern for educators, parents, and policymakers. Mobile phones, while offering immense opportunities for learning through educational apps, online research, and collaboration tools, are also significant sources of distraction (Adigun et al, 2024). Students often find themselves engaged in non-academic activities such as social media, gaming, and entertainment, which consume time meant for studying and homework. In many cases, this misuse of mobile phones results in reduced concentration, poor study habits, and declining academic performance.

In Ilorin West and South, the situation is particularly alarming due to the growing reliance on mobile phones among adolescents. Schools in these areas have reported a notable decline in academic achievement, with many attributing it to the excessive use of mobile phones. Despite the widespread use of mobile phones, there is limited empirical evidence on how this technology directly influences students' academic outcomes in these localities. Without a clear understanding of the relationship between mobile phone usage and academic performance, it remains challenging for schools, parents, and policymakers to develop effective strategies to address the issue. (Aina, 2025).

This research seeks to investigate the extent to which mobile phone usage affects academic performance among senior secondary school students in Ilorin West and South. By identifying the specific patterns, benefits, and challenges of mobile phone usage, this study aims to provide

actionable insights that will help mitigate the negative effects of mobile phones while maximizing their potential as educational tools.

Busayo (2021) stressed that the increasing prevalence of mobile phones among students raises concerns about their impacts on academic achievements. Many students prioritize social media, gaming, and entertainment over their studies, leading to declining grades and poor focus. Despite schools' efforts to regulate mobile phones usage, the negative academic consequences persist. The study seeks to examine the extent to which mobile phones usage affects the academic performance and to identify possible solutions to mitigate adverse effect

Purpose of the Study

The primary purpose of the study is to examine the effect of usage of mobile phones on senior secondary school students' academic performance in Ilorin West and South. This study is specifically designed to:

1. Investigate the relationship between mobile phones usage and students' academic performance;
2. Investigate the effects of the use of a mobile phone in student learning activities; and
3. Suggest ways to optimize the use of mobile phones for academic improvements among senior secondary school students.

Research Questions

1. What are the effects of usage of mobile phones on senior secondary school student's academic performance in Ilorin West and South based on school type?
2. What are the effects of the usage of mobile phones on senior secondary school student's academic performance in Ilorin West and South?
3. What are the effects of the usage of mobile phones on senior secondary school student's academic performance in Ilorin West and South based on gender?

Research Hypotheses

Ho1: There is no significant differences in the usage of mobile phones on senior secondary school student's academic performances in Ilorin West and South based on gender.

Ho2: There is no significant differences in the usage of mobile phones on senior secondary school student's academic performances in Ilorin West and South based on school type.

Methodology

The study adopts a descriptive survey research type. According to Oyeniyi (2023), the descriptive survey approach enables the collection of data from a representative sample of the population, providing insights into actual circumstances. This method is suitable for examining the relationship between mobile phone usage and academic performance among senior secondary school students. Busayo (2021) asserts that descriptive surveys are effective for evaluating people's behaviours, attitudes, and beliefs within a specific context.

The population for this study comprises all senior secondary school students in Ilorin West and South Local Government Areas. A sample of 100 participants was selected using stratified random sampling to ensure representation across schools in both the public and private sectors. The stratification was based on school type and location to capture diverse perspectives on mobile phone usage and its effects on academic performance. A structured questionnaire was used to collect data on students' patterns of mobile phone usage, their study habits, and academic performance. The questionnaire consisted of two sections: Section A: Demographic information, including age, gender, school type, and class level. Section B: Items related to mobile phone usage, study habits, and

academic performance. Respondents were rated on their agreement with statements on a four-point Likert scale: Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD).

The instrument was validated by three experts in the fields of educational management and psychology to ensure content validity. These experts reviewed the questionnaire to ensure alignment with the research objectives and adequacy in addressing key aspects of mobile phone usage and its academic implications.

The reliability of the questionnaire was determined through a pilot study conducted in two schools outside the selected sample. The test-retest method was employed, and Cronbach's Alpha was calculated to measure internal consistency. A reliability coefficient of 0.7 or higher was deemed acceptable.

The collected data was analyzed using descriptive and inferential statistical methods. Descriptive statistics, such as frequency counts, percentages, and mean scores, provided a summary of mobile phone usage patterns and their perceived effects.

Inferential statistics, including t-tests and correlation analysis, used to examine relationships between mobile phone usage and academic performance. Statistical analysis was conducted using SPSS software, with a significance level of 0.05 set for hypothesis testing. The results offered insights into the academic implications of mobile phone usage among secondary school students in the study area and guide recommendations for optimizing their use in educational settings.

Data Analysis and Results

This paper presents the results of the data analysis. The presentation of the results is guided by the research questions and hypotheses raised in this study. Data was obtained from one hundred senior secondary school students in Ilorin West and South Local Government Area. The data collected were analysed using descriptive and inferential statistics to respectively describe the respondents, answer the research questions and test the hypotheses.

Descriptive Statistics

Senior secondary school students in Ilorin West and South Local Government Area were asked to indicate their gender. Their responses were summarised in Table 1

Table 1: Gender Distribution of the respondents

Gender	Frequency	Percentage (%)
Male	37	37
Female	63	63
Total	100	100

It is shown in Table 1 that out of the sampled 100 Senior secondary school students in Ilorin West and South Local Government Area for this study, 37% are male while 63% are female, hence there are more female participants.

Senior secondary school students in Ilorin West and South Local Government Area were asked to indicate their school type. Their responses were summarised in Table 2

Table 2: Distribution of the respondents school type

School Type	Frequency	Percentage (%)
Public	30	37
Private	70	70
Total	100	100

It is shown in Table 2 that out of the sampled 100 Senior secondary school students in Ilorin West and South Local Government Area for this study, 30% are from public school while 70% are from private school, hence there are more participants from private school.

Research Questions

Research Question One: What are the effects of usage of mobile phones on senior secondary school student's academic performance in Ilorin West and South LGA?

Table 3: Effects of usage of mobile phones on senior secondary school student's academic performance in Ilorin West and South LGA

Effects	Frequency	Percentage (%)
Negative	30	37
Positive	70	70
Total	100	100

It is shown in Table 3 that out of the sampled 100 Senior secondary school students in Ilorin West and South Local Government Area for this study, 30% submitted that mobile phones usage has negative effects on their academic performance while 70% submitted that mobile phones usage has positive effects on their academic performance, hence the effects of usage of mobile phones on senior secondary school student's academic performance in Ilorin West and South LGA is positive because majority (70%) indicated that.

Hypotheses Testing

Hypothesis One: There is no significant difference in the usage of mobile phones on senior secondary school student's academic performance in Ilorin West and South based on gender

Table 4: Summary of t-test statistics showing difference in the usage of mobile phones on senior secondary school student's academic performance in Ilorin West and South based on gender

Gender	N	Mean	SD	Df	t-value	p-value	Decision
Male	37	16.00	1.22	98	0.60	0.56	Accepted
Female	63	15.84	1.36				

shown on Table 4 the t-test calculated value is 0.60 while its p- value is 0.56 at alpha level of 0.05. The null hypothesis one is accepted since the p-value 0.60 is greater than 0.05

alpha level (0.60 >0.05). Thus, there is no significant difference in the usage of mobile phones on senior secondary school student's academic performance in Ilorin West and South based on gender.

Hypothesis Two: There is no significant difference in the usage of mobile phones on senior secondary school student's academic performance in Ilorin West and South based on school type

Table 5: Summary of t-test statistics showing difference in the usage of mobile phones on senior secondary school student's academic performance in Ilorin West and South based on school type.

School Type	N	Mean	SD	Df	t-value	p-value	Decision
Public	30	16.00	1.44	98	0.50	0.62	Accepted
Private	70	15.86	1.25				

shown on Table 5 the t-test calculated value is 0.50 while its p- value is 0.62 at alpha

level of 0.05. The null hypothesis two is accepted since the p-value 0.50 is greater than 0.05

alpha level (0.50 >0.05). Thus, there is no significant difference in the usage of mobile phones on senior secondary school student's academic performance in Ilorin West and South based on school type.

Summary of Findings

Based on the data collected, analyzed and interpreted, the following findings were obtained.

The effects of usage of mobile phones on senior secondary school student's academic performance in Ilorin West and South LGA is positive.

There is no significant difference in the usage of mobile phones on senior secondary school student's academic performance in Ilorin West and South based on gender

There is no significant difference in the usage of mobile phones on senior secondary school student's academic performance in Ilorin West and South based on school type.

Discussion of Findings

This study was set out to investigate the effect of usage of mobile phone on senior secondary school student academic performance in Ilorin West and South Local Government, Kwara state. Two research questions and two null hypotheses were postulated for the study and tested at 0.05 alpha level of significance using t-test statistical tools. Thus, this chapter contains mainly the discussion of findings, conclusion and recommendations based on the findings of the study.

The finding in Table 1 shows that out of the sampled 100 senior secondary school students in Ilorin West and South Local Government Area for this study, 37% are male while 63% are female, hence there are more female participants.

The finding in Table 2 shows that out of the sampled 100 senior secondary school students in Ilorin West and South Local Government Area for this study, 30% are from public school while 70% are from private school, hence there are more participants from private school

It is shown in Table 3 that out of the sampled 100 senior secondary school students in Ilorin West and South Local Government Area for this study, 30% submitted that mobile phones usage has negative effects on their academic performance while 70% submitted that mobile phones usage has positive effects on their academic performance, hence the effects of usage of mobile phones on senior secondary school student's academic performance in Ilorin West and South LGA is positive because majority (70%) indicated that.

The testing of hypothesis one in Table 4 shows the t-test calculated value is 0.60 while its p-value is 0.56 at alpha level of 0.05. The null hypothesis one is accepted since the p-value 0.60 is greater than 0.05 alpha level ($0.60 > 0.05$). Thus, there is no significant difference in the usage of mobile phones on senior secondary school student's academic performance in Ilorin West and South based on gender.

In Table 5 the t-test calculated value is 0.50 while its p-value is 0.62 at alpha level of 0.05. The null hypothesis two is accepted since the p-value 0.50 is greater than 0.05 alpha level ($0.50 > 0.05$). Thus, there is no significant difference in the usage of mobile phones on senior secondary school student's academic performance in Ilorin West and South based on school type.

Conclusion

The study investigated the effects of mobile phone usage on the academic performance of senior secondary school students in Ilorin West and South Local Government Areas. The results showed that while 30% of the students reported negative effects, a significant majority (70%) reported positive effects. These findings suggested that mobile phones can be a valuable tool for learning, providing access to educational resources, facilitating communication, and enhancing engagement. However, they also highlight the need for responsible mobile phone use and strategies to minimize distractions and decreased productivity.

The study's results have implications for educators, parents, and policymakers seeking to promote effective learning and academic achievement. By understanding the complex relationship between mobile phone usage and academic performance, stakeholders can develop targeted interventions and strategies to maximize the benefits of mobile phones while minimizing their drawbacks.

The study's findings highlight the complexity of the relationship between mobile phone usage and academic performance. While mobile phones can be a valuable tool for learning, they can also be a distraction. The lack of significant difference based on gender suggests that strategies to promote responsible mobile phone use can be implemented without considering gender differences.

Recommendations

Educators and parents should establish clear guidelines and boundaries for mobile phone usage in academic settings.

Schools should incorporate mobile phones into instructional design, leveraging their potential as a learning tool.

Students should be educated on responsible mobile phone use, including strategies for minimizing distractions and staying focused.

Further research should investigate the specific factors influencing the positive and negative effects of mobile phone usage on academic performance.

Develop strategies to promote responsible mobile phone use: Educators, parents, and policymakers should work together to develop strategies that promote responsible mobile phone use and minimize its negative effects on academic performance.

Instead of focusing on gender and school type differences, educators and policymakers can concentrate on individual and environmental factors that influence students' learning outcomes.

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