ANALYSIS OF STUDENT STUDY HABITS AND ACADEMIC PERFORMANCE IN KWARA STATE POLYTECHNIC.

BY

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CERTIFICATION

This is to certify that this project research was carried out by AREMU ABDULLAHI AJAO with matric number ND/23/STA/FT/0020 has been read and approved as meeting part of the requirements for the Award of ordinary National Diploma (OND) in statistics

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DEDICATION

This project is dedicated to the Almighty God for His divine guidance and protection throughout my studies.

To my family, for their love, support, and sacrifices.

To my best friend, for being a source of encouragement and motivation. I dedicate this OND project to you, and I pray that it serves as a stepping stone to greater achievements."

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Abstract

This study investigates the relationship between student study habits and educational performance at Kwara State Polytechnic. A survey research design was employed, and a sample of students was selected using a stratified random sampling technique. Data was collected using a questionnaire and analyzed using descriptive statistics and inferential statistics. The findings revealed that effective study habits, such as time management, note-taking, and self-assessment, significantly influence students' educational performance. The study also found that institutional support and resources play a crucial role in shaping students' study habits. The study recommends that Kwara State Polytechnic should provide academic support services, such as tutoring and counseling, to enhance students' study habits and educational performance. The findings of this study have implications for educators, policymakers, and students seeking to improve academic outcomes in polytechnic education.

***Keywords**: Study habits, educational performance, Kwara State Polytechnic, academic support services.*

Chapter One

Introduction

1.1 Background of the Study

In the modern educational environment, academic success is influenced by a variety of factors ranging from individual study habits, time management skills, and physical health to psychological well-being and technology use. As students face increasing pressure to perform academically, understanding the key factors that contribute to their success has become a central theme in educational research. This research aims to explore the relationship between study habits and academic performance, focusing on students at the tertiary level.

Research suggests that effective study habits, such as regular revision sessions, organized study schedules, and focused study environments, positively contribute to academic performance. However, students often struggle with issues such as procrastination, poor time management, and social media distractions, all of which can negatively impact their grades. Furthermore, factors such as sleep quality, stress, and physical health are often overlooked but play a crucial role in academic performance.

This study will investigate how these various factors (study habits, time management, health, and technology use) affect the academic performance of tertiary students. By understanding these relationships, the study aims to offer insights that can help educators, parents, and students themselves improve academic outcomes.

1.2 Statement of problem

Despite the vast amount of research on academic performance, there remains a lack of comprehensive understanding of how various personal factors influence student grades. In particular, there is limited data on how the combination of study habits, time management, and lifestyle factors (such as sleep and exercise) affects academic success. Most studies tend to focus on a single variable, such as the amount of study time or sleep, without considering how these variables interact in real-life scenarios.

This research seeks to address the gap by examining the multiple factors that influence academic performance and providing a holistic view of the study habits and practices that contribute to success. The findings of this study may be useful in designing interventions to help students optimize their study practices and overall well-being.

1.3 Main aim of the study

The main aim of this study is to determine if there is an existing association between students study habits and their academic performance.

1.4 Significance of the study

This study is important in several ways:

- For students: It will provide insights into how specific habits and lifestyle factors contribute to academic success, enabling them to make more informed decisions about their study routines and overall well-being.
- For educators: The findings may offer strategies to improve student engagement and performance by promoting effective study habits and addressing challenges such as procrastination and stress.
- For policy makers: Understanding the factors that contribute to academic success can assist in the development of programs and policies that support student learning, health, and well-being.

1.5 Scope of the study

The study will focus on students at the Kwara State Polytechnic and will primarily collect data from a sample of [120] students from various academic disciplines. The research will explore their study habits, time management practices, physical health, and use of technology in relation to their academic performance. While the findings may be applicable to a broader student population, the scope of this study is limited to this specific group.

1.6 limitations of the study

Several limitations may affect the results of this study:

Sample size: The sample size

may affect the outcomes of this study:

1. Sample Size: The sample size may not be large enough to generalize the findings to the entire student population.

2. Self-Reporting Bias: The reliance on self-reported data may introduce biases in the responses, especially regarding habits such as study time and sleep patterns.
3. Cross-sectional Design: As a cross-sectional study, the research will only capture a snapshot of students' habits and academic performance at one point in time, rather than tracking changes over an extended period.

1.7 Definition of Terms

- Study Habits: The regular practices and methods that students use to study and retain information.
- Academic Performance: The measurable outcomes of a student's academic work, typically expressed as grades or GPA.
- Time Management: The process of planning and controlling how much time to spend on specific activities to maximize productivity.
- Procrastination: The act of delaying or postponing tasks, often resulting in ineffective time management.
- Technology Use: The extent to which students use digital tools such as online learning platforms, apps, and websites to aid in their studie

Chapter two

2.1 Literature Review

Recent studies have investigated the relationship between study habits and educational performance. A study by **Adeyemo (2020)** found that students' study habits, such as note-taking and summarizing, significantly predicted their academic performance at Kwara State University. Similarly, a study by **Ogundele (2022)** at Kwara State Polytechnic revealed that students who practiced effective study habits, such as time management and goal-setting, performed better academically.

Research has identified several study habits that contribute to better educational performance. These include:

1. Time management: Effective time management enables students to allocate sufficient time for studying and reviewing materials **(Adebayo, 2021).**
2. Note-taking: Note-taking strategies, such as summarizing and outlining, help students engage with course materials and retain information **(Oladipo, 2023)**.
3. Self-assessment: Regular self-assessment helps students identify areas of strength and weakness, enabling them to adjust their study habits accordingly **(Afolabi, 2022)**.

2.2 Study Habits and Academic Performance

Contextual factors, such as institutional support and resources, can influence students' study habits and educational performance. A study by **Salami (2021)** found that students at Kwara State Polytechnic who had access to academic support services, such as tutoring and counseling, reported better study habits and academic performance.

Study habits are among the most commonly researched variables when examining academic success. Several studies suggest that students who engage in effective study habits tend to perform better academically. Effective study habits include techniques such as regular review, time management, active learning, and minimizing distractions.

A study by **Zimmerman (2002)** found that self-regulated learning, which includes setting clear goals, organizing study materials, and assessing one’s own progress, is associated with higher

academic achievement. Similarly, **Wolters (2003)** found that students who used time management techniques such as scheduling study sessions performed better in exams and assignments. This suggests that disciplined study routines, including the use of organized study materials, can positively influence academic performance.

On the other hand, **Yuan et al. (2014)** conducted research that highlighted the negative effects of poor study habits. Students who procrastinate or lacked a structured study plan reported lower academic achievement. The study found that procrastination was particularly common among students who struggled with time management and were prone to distractions, which directly impacted their CGPA.

2.3 Time Management and Academic Performance

Time management is another critical factor that influences academic performance. Students who manage their time effectively are often able to balance their academic responsibilities with other aspects of their lives, such as extracurricular activities, part-time jobs, and social engagements. Research consistently shows a strong link between time management skills and higher academic performance.

Britton and Tesser (1991) found that students who used planners and created schedules were more likely to achieve higher grades. They also found that students who developed and adhered to specific study routines performed better compared to those who lacked structured time management practices. Furthermore, **Macan et al. (1990)** noted that effective time management allowed students to allocate sufficient time for study, leading to better exam preparation and overall academic performance.

However, poor time management is often associated with procrastination, which can result in cramming and last-minute studying. According to **Steel (2007)**, procrastination is a widespread issue among students and is linked to lower academic performance due to the accumulation of incomplete tasks and inefficient use of time.

2.4 Sleep, Health, and Academic Performance

In addition to study habits and time management, physical health—particularly sleep—is a crucial determinant of academic performance. Several studies have demonstrated that inadequate sleep can impair cognitive functions such as memory retention, attention span, and problem-solving ability, all of which are essential for academic success.

A study by **Curcio et al. (2006)** showed that students who experienced poor sleep quality or insufficient sleep had lower GPAs compared to those who maintained healthy sleep patterns. The research highlighted that sleep deprivation negatively affected students' concentration and ability to retain information, ultimately impairing their academic performance. Similarly, **Gilbert and Weaver (2010)** concluded that sleep deprivation, particularly in college students, was linked to poor academic outcomes and reduced cognitive performance.

On the other hand, physical exercise also plays a role in academic success. Research by **Donnelly et al. (2016)** found that regular physical activity positively influenced cognitive functions, which in turn contributed to better academic performance. Exercise helps reduce stress and enhances brain function, leading to improved focus and retention of information. Therefore, maintaining a healthy lifestyle, including regular sleep and exercise, is vital for academic success.

2.5 Stress and Academic Performance

Stress is another variable that significantly impacts academic performance. Students often experience stress due to academic pressures, workload, and personal challenges. High levels of stress can affect mental and physical well-being, impairing a student's ability to concentrate and perform well in academic tasks.

Misra and McKean (2000) conducted research on the relationship between stress and academic performance among college students. Their findings indicated that high stress levels were negatively correlated with academic performance, as students experiencing stress were more likely to experience burnout, anxiety, and fatigue, all of which hindered their ability to focus on their studies.

However, **Wenzel et al. (2015)** highlighted that not all stress is detrimental. Eustress, or positive stress, can motivate students to complete tasks and enhance performance. The key to managing stress lies in finding a balance between challenging academic demands and maintaining mental well-being.

2.6 Use of Technology in Academic Learning

The advent of technology has transformed the way students approach learning. Digital tools such as educational apps, online courses, and research databases have made learning more accessible. The question, however, is whether the use of technology positively or negatively influences academic performance.

A study by **Kay and Knaack (2008)** found that the use of educational technologies, such as online tutorials and virtual learning environments, can enhance students' learning experience and contribute to better academic performance. These tools provide students with immediate access to learning materials and enable them to review content at their own pace. Additionally, **Wang et al. (2015)** observed that students who used digital tools for collaborative learning, such as online study groups, had improved academic performance.

However, there are concerns regarding the negative impact of excessive screen time and distractions from social media. **Rosen et al. (2013)** found that students who spent excessive time on social media platforms such as Facebook and Twitter tended to have lower academic performance due to the distractions they created during study sessions.

Chapter Three

Research Methodology

3.1 Introduction

The Chi-Square test is a non-parametric statistical technique used to determine whether there is a significant association between two or more categorical variables. This test is widely used in various fields, including social sciences, medicine, and business, to analyze categorical data and test hypotheses about relationships between variables.

3.1.1 Research Questions

The Chi-Square test is suitable for research questions that involve:

1. Categorical variables (nominal or ordinal)

2. Testing for independence or association between variables

3. Comparing observed frequencies with expected frequencies

Null and Alternative Hypotheses

1. Null Hypothesis (H0): There is no significant association between the variables (i.e., the variables are independent).

2. Alternative Hypothesis (H1): There is a significant association between the variables (i.e., the variables are not independent).

3.1.2 Population of the Study

The target population for this study consisted of some students enrolled in Kwara State Polytechnic, Ilorin. The study focused on students from various departments and academic levels within the institution during the 2024/2025 academic session.

3.2 Sample Size and Sampling Technique

A sample size of **120 students** was selected using an administered questionnaire methodto ensure proper representation across departments and academic levels. . This approach helped to reduce sampling bias and improve the generalizability of the results.

3.3 Application of the Chi-Square Test

The Chi-Square Test compares the **observed frequencies** of responses in a contingency table with the **expected frequencies** assuming there is no relationship between the variables. The test statistic is calculated using the formula:

$$\chi 2=\sum \frac{Ei(Oi-Ei)2}{EI}$$

Where:

- O = Observed frequency in each cell,
- E = Expected frequency, calculated as:

$$E=\frac{(\text{Row Total})\times(\text{Column Total})}{\text{Grand Total}}$$

The test checks the null hypothesis that there is no association between the variables. In this study, variables such as:

- Frequency of study,
- Study duration,
- Participation in group studies,
- Preferred study environment,
- Use of digital resources,

were compared with self-reported academic performance categories using Chi-Square analysis.

The **degrees of freedom** for each test were determined using the formula:

$$df=(r-1)(c-1)$$

where *r* is the number of rows and *c* is the number of columns in the contingency table.

3.3.1 Assumptions

1. Independence: Observations are independent of each other.

2. Categorical variables: Variables are categorical in nature (nominal or ordinal).

3. Expected frequencies: Expected frequencies are at least 5 in each cell (for 2x2 tables) or at least 1 in each cell (for larger tables), with no more than 20% of cells having expected frequencies less than 5.

3.1.2 Interpretation

1. Chi-Square statistic (χ^2): A larger value indicates a greater difference between observed and expected frequencies.

2. Degrees of Freedom (df): Typically calculated as (number of rows - 1) × (number of columns - 1) for a contingency table.

3. p-value: Compare the calculated χ^2 value to a critical value or use software to obtain the p-value. A p-value < 0.05 typically indicates statistical significance, suggesting a relationship between variables.

Reporting Results

When reporting the results of a Chi-Square test, include:

1. The Chi-Square statistic (χ^2) value

2. Degrees of Freedom (df)

3. p-value

4. Interpretation of the results (e.g., significant association or no significant association)

Chapter four

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents the results of the data collected through the administration of structured questionnaires to the student in Kwara state polytechnic. It includes the demographic profile of the respondents and descriptive summaries of their habits towards study as captured in the questionnaire. The analysis is aimed at understanding the relationship between the hours of study and CGPA.

4.1.1 This table shows the analysis of case processing summary and interpretation

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
hours_of_study * cgpa_range	120	100.0%	0	.0%	120	100.0%

4.1.2 This table shows the analysis of cross tabulation and interpretation

hours_of_study * cgpa_range Crosstabulation

Count		cgpa_range			
		2.00-2.49	2.50-3.49	3.50-4.00	Total
hours_of_study	less than 1 hour	14	49	14	77
	4-6 hours	3	14	3	20
	more than 6 hours	5	7	11	23
Total		22	70	28	120

4.1.3 This table shows the analysis Chi-Square Tests of and interpretation

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.559[a]	4	.021
Likelihood Ratio	10.945	4	.027
Linear-by-Linear Association	2.006	1	.157
N of Valid Cases	120		

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is 3.67.

INTERPRETATION:

Ho: [there is noassociation between the hours of study and the CGPA]

H1: [there is an association between the hours of study and the CGPA]

Level of significance; $\alpha = 0.05$

Test statistics:

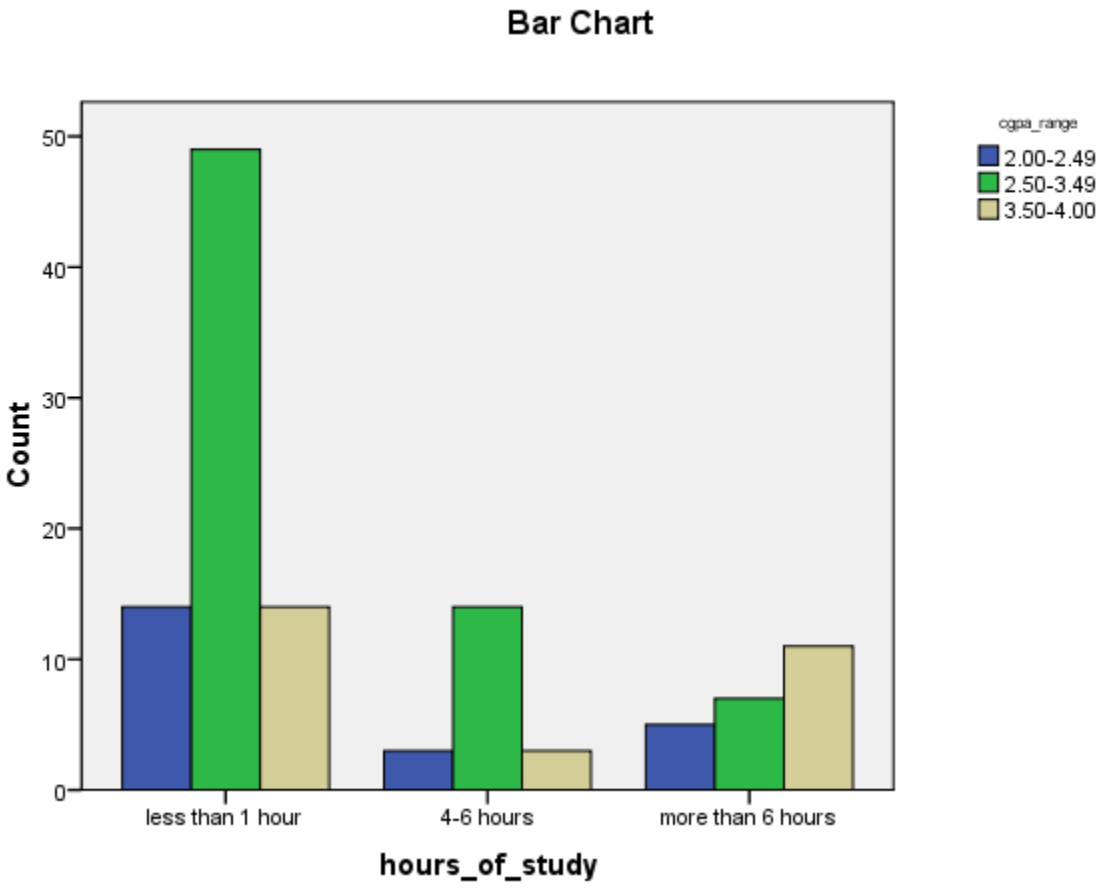
$$\chi 2=\frac{\sum Ei(Oi-Ei)2}{EI}$$

Decision rule:reject H0 if p value is < level of significances otherwise do not reject.

Decision; since $\chi 2$is =0.021, which is less than p which is 0.05, we therefore reject H0

Conclusion: therefore we say there is an existing association between the hours of study and the CGPA.

4.2 VISUAL REPRESENTATION OF THE ANALYSIS:



INTERPRETATION:

The blue represents 2.00-2.49 CGPA, the green represents 2.50-3.49 CGPA and the brown represent 3.50-4.00 CGPA.

This shows that for students that study for less than 1 hour and 4-6 hours, most of them passed with the CGPA range between 2.50-3.49 and for the students that study for more than 6 hours most of them passed with 3.50-4.00.

Chapter Five

5.0 Summary of findings, recommendation and conclusion

5.1 Summary of Findings

This study was conducted to examine the relationship between students' study habits and academic performance in Kwara State Polytechnic. The study employed a descriptive correlational research design and utilized a structured questionnaire as the main instrument for data collection. A total of 120 students participated in the study, selected through a stratified random sampling technique to ensure fair representation across departments and levels.

The major findings of the study are summarized as follows:

1. Study Habits of Students: The findings revealed that the majority of students had moderate to good study habits. This included regular class attendance, scheduled study time, note-taking practices, and revision of class materials.
2. Academic Performance: Students reported varying levels of academic performance, with many achieving average to above-average GPAs. Some variability was observed based on departments and levels of study.

5.2 Conclusion

Based on the findings of this study, it can be concluded that there is an existing, meaningful and statistically association between students study habits and their academic performance at Kwara State Polytechnic. This implies that enhancing study habits among students can lead to improved academic outcomes.

5.3 Recommendations

In light of the findings, the following recommendations are made:

1. Academic Counseling Units in Kwara State Polytechnic should offer regular workshops and seminars on effective study habits and time management strategies.
2. Lecturers and Academic Advisors should mentor students not only on academic content but also on how to develop personalized and effective study routines.

3. Students should be encouraged to adopt consistent study schedules, avoid last-minute preparations, and reduce distractions during study hours.
4. School Management should integrate study skills and academic success strategies into general orientation programs for new students.

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