RELATIONSHIP BETWEEN STUDY HABITS AND ACADEMIC PERFORMANCE OF SENIOR SECONDARY SCHOOL STUDENTS IN KADUNA METROPOLIS, NIGERIA

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P16EDPC8020

A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, AHMADU BELLO UNIVERSITY ZARIA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER DEGREE IN GUIDANCE AND COUNSELLING

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SEPTEMBER, 2019

DECLARATION

The Researcher declare that the work in this dissertation entitled "Relationship between Study Habits and Academic Performance of Senior Secondary School Students in Kaduna Metropolis, Nigeria," has been performed by me in the Department of Educational Psychology and Counselling under the supervision of Prof. M.I. Abdullahi and Prof. D.O. Oliagba. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this dissertation has been presented previously for another degree or diploma at any institution.

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CERTIFICATION

This Dissertation entitled "Relationship Between Study Habits and Academic Performance of Senior Secondary School Students in Kaduna Metropolis, Nigeria," by Bello Ahmed TANKO meets the regulations governing the award of Master's Degree (M.Ed) Guidance and Counselling in the Department of Educational Psychology and Counselling, Faculty of Education, Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This study is dedicated to my Late Parents Zakariyya and Khadijat. May Almighty Allah grant them Jannatul Firdaus, Ameen.

ACKNOWLEDGEMENTS

Glory and thanks be to Allah for giving the researcher the opportunity to pursue his postgraduate degree and the strength to accomplish this task. The researcher expresses profound gratitude to his major supervisor Professor M. I. Abdullahi for his scholarly guidance and patience. His timely feedbacks, valuable corrections, suggestions, recommendations and positive criticism were very inspiring and useful. The knowledge gained in the course of interacting with him is indeed cherished and treasured. The researcher is also grateful to his second supervisor Professor D.O. Oliagba for offering his precious time and guiding this research project through all its steps to meet the standard.

The researcher's sincere appreciation goes to the Head of Department, Educational Psychology and Counselling, Professor A. I. Mohammed. Special thanks to all the lecturers; Professor M. Balarabe, Dr. Y. Umaru, Professor S. Sambo, Professor R. M. Bello, Professor E.F. Adeniyi, Professor K. Mahmud, Late Dr. J.O. Bawa, Dr. S.A. Adisa, Professor H. Adamu and Dr. H.A. Tukur for their scholarly guidance and invaluable contributions throughout the period of this research. Appreciation to Dr. Mohammed Ibn Abdallah, Mrs. Zainab Atiku Abubakar, Ibrahim D.Tanko, Nasiru Usman and Muktar A. Monrovia for their moral and financial contributions towards the success of this work. The researcher wishes to express his profound appreciation to his lovely angel Jamila Abubakar for her support, patience and understanding throughout the period of this research.

ABSTRACT

This study examined the relationship between study habits and academic performance of senior secondary school students in Kaduna Metropolis, Nigeria. Correlational research design was employed in the conduct of this study. The sample consisted of 340 students drawn from eight randomly selected schools with the population of 2707 in Kaduna Metropolis. Study Habit Inventory (SHI) and Academic Performance Test on English and Mathematics were instruments used for data collection. Six null hypotheses were tested at .05 level of significance using Pearson Product Moment Correlation (r). Result showed that there was no significant relationship between homework/assignment and academic performance of students (r = -0.011, p-value = 0.840). It also showed significant negative relationship between time allocation and academic performance of students (r = 0.058, p- value = 0.281). It was also found that significant positive relationship exists between reading/note-taking and academic performance of students (r = 0.096, p-value = 0.017). On the basis of these findings, it was recommended among others that all dimensions of study habits, especially those related to homework/assignment, time allocation, reading/note-taking, study concentration, written work and teacher consultation should be given consideration when planning any programme for senior secondary school students in Kaduna State; To improve the academic performance of students, school psychologists, counselors and teachers need to sensitize students on the importance of developing and imbibing good study habits towards high academic performance.

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LIST OF ABBREVIATIONS

SHI: Study Habit Inventory

APTEM: Academic Performance Test on English and Mathematics

GSS: Government Secondary School

GGSS: Government Girls Secondary School

OPERATIONAL DEFINITION OF TERMS

For the purpose of this study, the following terms were operationally defined:-

Study habits: the adopted way and manner a student plans his private readings after classroom learning so as to attain mastery of the subjectas depicted in homework/assignment, time allocation, reading/note-taking, study concentration, written work and teacher consultation.

Academic performance: the average performance of SS II students on English Language and Mathematics test administered by the researcher.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Study habit is an essential part of student's overall academic success. It has a complex interactive relationship with learning outcomes whether positive or negative. Good study habit propels the development of study skills, which enhances better student performance, while bad study habit disconnects an individual from access to some basic study skills, leading to academic failure. Azikiwe (as cited in Akagah, 2011) asserted that good study habits are good asset to learners because they assist students to attain mastery in areas of specialization and consequent excellent performance, while the opposite constitute constraints to learning and performance leading to failure. Crede (2008) argued that study habits are mainly external factors that facilitate the study process such as sound study routines that include how often a student engages in studying sessions, review the material, self-evaluate, rehearse explaining the material and studying in a conducive environment. Patel (as cited in Akagah, 2011) maintained that study habits include; home environment and planning of work, reading and note-taking, planning of subjects, concentration, preparation for examination as well as school environment.

According to Jimoh (2011) students often perform poorly in school because they lack good study habits. In many cases, students do not know where to begin, don't fully understand what they study, are not motivated or feel that there was too much work given to them with too little time to complete or study it, thus generating a lot of concern across the spectrum of stakeholders in the education sector. In addition, the world is becoming more and more competitive and quality of performance has become the key factor for personal progress. Parents desire that their children climb the ladder of academic performance to as high a level as possible. This desire for a high level of performance puts a lot of pressure on

students, teachers, schools, and in general, the education system itself. It appears as if the whole system of education revolves around the academic performance of students, though various other outcomes are also expected (Akagah, 2011).

According to Oloyode (2006) academic performance refers to educational outcome. It is a yardstick used to determine how far a student has mastered a course of study within a given period of time. He also noted that academic performance is the actual performance of student in academic subjects and basic knowledge. When good performance is not attained, the individual and other family members experience feelings of anxiety concerning the individual's academic world. The need to improve academic performance is one of the basic objectives of educating the students. In every school setting, academic performance is what each student strives to achieve and the attainment of good performance can only be enhanced through good study habits. Scott (2012) posited that successful students have good study habits and so they apply them to all of their classes for effective performance.

Research findings and practical experiences suggest that many secondary school students have defective study habits. For instance, Kagu (as cited in Jimoh, 2011) argued that poor study was indeed a problem among so many Nigerian students, adult and non-adults. Day to day experiences show a growing rate of frustrations on the part of students due to poor study habit. He further indicated that the current poor academic performance expressed by students at all levels may not be unconnected with poor study habit and poor study environment. In spite of increased attention to the academic needs of students with poor study habits, their academic achievement do not appear to be improving. For example, 80% of the candidates that sat for the Senior Secondary School Examination (SSCE) in 2012 failed English Language and Mathematics (Adejor,2012). Unfortunately, these poor outcomes do not also improve when they leave the school setting. This group of students, end up without

the necessary educational skills, knowledge and competencies that makes one attractive in the labour market.

The admission requirement to tertiary institutions in Nigeria emphasizes credit passes in five subjects including English language and Mathematics at not more than two sittings. This implies that students who do not measure up to this level of performance could not be said to have gained much from secondary education. The chances for a bright future for such students are rather slim. This study therefore determined the relationship between study habits and academic performance of senior secondary school students in Kaduna metropolis, Nigeria.

1.2 Statement of the Problem

The poor academic performance of secondary school students in major subjects like English Language and Mathematics has become a matter of concern not only to counselors, psychologists, parents, but all those interested in the education of the young ones. Many educationists tend to blame the failure of students on the teaching methodology adopted by teachers, lack of funds from government to provide quality textbooks and lack of parental support, but hardly does it occur to many that poor study habit might also be a major factor.

The researchers' personal observation of secondary school students in Kaduna metropolis revealed that majority of them find it difficult to study after school hours, they neglect homework and assignment, they cannot express their thoughts in an organized manner, they get distracted while studying, they cannot take good notes, they give little time to personal reading, and they rarely consult their teachers when they have problems. These portends ominous threat to their academic success, it may lead to exams failure and impede academic performance as the students are unable to take advantage of learning opportunities at school.

In the light of the foregoing, the study determined the relationship between study habits and academic performance of senior secondary school students in Kaduna Metropolis, Nigeria.

1.3 Objectives of the Study

The objectives of this study were to determine:

1. The relationship between homework/assignment and academic performance of senior secondary school students in Kaduna Metropolis.
2. The relationship between time allocation and academic performance of senior secondary school students in Kaduna Metropolis.
3. The relationship between reading/note-taking and academic performance of senior secondary school students in Kaduna Metropolis.
4. The relationship between study concentration and academic performance of senior secondary school students in Kaduna Metropolis.
5. The relationship between written work and academic performance of senior secondary school students in Kaduna Metropolis.
6. The relationship between teacher consultation and academic performance of senior secondary school students in Kaduna Metropolis.

1.4 Research Questions

The following research questions guided the study:-

1. What is the relationship between homework /assignment and academic performance of senior secondary school students in Kaduna Metropolis?
2. What is the relationship between time allocation and academic performance of senior secondary school students in Kaduna Metropolis?
3. What is the relationship between reading/note-taking and academic performance of senior secondary school students in Kaduna Metropolis?

4. What is the relationship between study concentration and academic performance of senior secondary school students in Kaduna Metropolis?
5. What is the relationship between written work and academic performance of senior secondary school students in Kaduna Metropolis?
6. What is the relationship between teacher consultation and academic performance of senior secondary school students in Kaduna Metropolis?

1.5 Research Hypotheses

The following research hypotheses were formulated and tested:-

1. There is no significant relationship between homework/assignment and academic performance of senior secondary school students in Kaduna Metropolis.
2. There is no significant relationship between time allocation and academic performance of senior secondary school students in Kaduna Metropolis.
3. There is no significant relationship between reading/note-taking and academic performance of senior secondary school students in Kaduna Metropolis.
4. There is no significant relationship between study concentration and academic performance of senior secondary school students in Kaduna Metropolis.
5. There is no significant relationship between written work and academic performance of senior secondary school students in Kaduna Metropolis.
6. There is no significant relationship between teacher consultation and academic performance of senior secondary school students in Kaduna Metropolis.

1.5 Basic Assumptions

It was assumed in this study that:

1. Homework/Assignment may have relationship with academic performance of senior secondary school students.
2. Time Allocation may have relationship with academic performance of secondary school students.
3. Reading/Note-taking may have relationship with academic performance of secondary school students.
4. Study Concentration may have relationship with academic performance of secondary school students
5. Written work may have relationship with academic performance of secondary school students.
6. Teacher consultation may have relationship with academic performance of secondary school students.

1.7 Significance of the Study

The findings of this research work will be beneficial to students, teachers, parents, school counselors, policy makers and the government.

Students will benefit from the findings of this study as they will be offered the necessary assistance on how to develop good study habits, which will help to improve upon their academic performance. Students will also be given information on how study habits affect their academic performance and the result of this study will make them aware of the common study habits among other co-students. It will be beneficial to the students who lack the ability to alter their behavior towards achieving their academic goals. The knowledge of the relationship between study habit and academic performance will acquaint students with the effect of their actions or behaviors on their academic growth. It will also assist them to

assume responsibility for their academic outcomes, hence, avoid blaming their failure in examinations on the fault of their parents or teachers. It will as well help students to change from their negative habit and attitude towards learning in order to improve on their academic performance.

The findings of this work will guide teachers and school counsellors who always have the desire to see their students perform well by giving them the right techniques of developing good study habits. It will as well help teachers in understanding better the diversity of learning in students and as such, develop more effective methodologies in teaching their subject matter for better understanding of students.

The research work will be beneficial to parents. It will serve as a means of improving their level of awareness about the need for developing good study habits among students. Hence parents commit themselves to their roles in providing motivation and rewards to students to encourage the formation and maintenance of good study habits among students at the family level.

The findings of this work will serve as an eye opener to people and government at all levels to understand that study habits of students determine their educational outcomes. Therefore, government will be inspired to provide the needed learning materials and facilities to motivate students towards the development of good study habits and ultimate improvement in academic performance.

The research outcomes will serve as a guide and resource document to policy makers and stakeholders in developing curriculum materials and textbooks, taking into consideration student's needs and aspirations as they study to pass their examinations both at the secondary and tertiary levels.

The questions this study raised and answered will help future researchers in the area of study habit and academic performance. It will also add to the existing body of literature on study habit and academic performance of secondary school students.

1.8 Scope and Delimitation

This study determined the relationship between study habits and academic performance of senior secondary school students in Kaduna Metropolis. This research work was carried out among senior secondary school students (SSS II) from eight randomly selected Government secondary schools in the two educational zones in the Metropolis. In this study, study habit was measured across six indices namely; homework / assignment, time allocation, reading / note-taking, study concentration, written work and teacher consultation (extracted from the study habit inventory). Two major subjects; English Language and Mathematics were used to measure the academic performance of students.

The study was delimited to other Government secondary schools around that were not located in Kaduna Metropolis. It was also delimited to JSS I, JSS II, JSS III, SSS I and SSS III and other school subjects like Biology, Chemistry, Government, Economics, to mention a few.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter examines some relevant theories, views and research works related to study habit and academic performance. It contains information gathered from books and other periodicals, online sources and various unpublished materials that provided the researcher with the necessary background knowledge to follow the study. It was organised under the following sub-themes:-

i. Conceptual framework
ii. Habit formation and significance
iii. Study habits
iv. Students' common study habits and their significance
v. Techniques for cultivating good study habits
vi. Factors influencing study habits of students
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2.2 Conceptual Framework

2.2.1 Habit Formation and Significance

Habit refers to a practice or usual behaviour that cannot be easily given up. Bernard (as cited in Akagah, 2011) defined habit as an act or pattern of behaviour that makes outcome so easy through practice, that they occur spontaneously or automatically in a given situation without conscious thought or concentration. Habits develop as a response to long-term practices, which in turn derive from our formal and informal education within our specific cultural settings. Habits are observable through behavior, which are influenced by attitude. Once attitude is formed, it directs behavior, which in turn becomes habit after sometime. Study habits typically denotes the degree to which the student engages in regular acts of studying that are characterized by appropriate study routines occurring in an environment that is conducive to studying.

According to Denga (as cited in Akagah, 2011) Habits save time and make for economy of action, devotion of time and thoughts in order to obtain knowledge and have a close examination of a subject especially from books. It is argued that behaviour that is reinforced tends to become habitual. Iheanacho (as cited in Akagah, 2011) argued that reinforcement increases the probability that any given response will be repeated. Given the above position, habit formation can best be appreciated and understood when one considers that a motivated behaviour needs to be sustained for a considerable period of time before one can rightly say that it is a habit. Forming and maintaining good study habits, therefore demands a greater degree of competence and an exact knowledge of what to do when student study (Akagah, 2011). In this regards, Abdullahi (2008) viewed study as a deliberate effort by individual to acquire and understand what has been taught by a teacher or lecturer or what is being read in a book. Furthermore, Crow and Crow (2007) maintained that the chief purposes

of study are; to acquire knowledge and habits, which will be useful in meeting new situations, interpreting ideas, making judgements, creating new ideas and to perfect skills.

Habit formation is also influenced by the students' perception of what is responsible for failure. Students who believe that their poor academic performance is caused by factors out of their control are unlikely to see any reason to hope for an improvement in study habit formation. In contrast, if students attribute their poor performance to a lack of important skills or to poor study habits formation, they are more likely to persist in the future. Akagah (2011) identified some characteristics of habits as follows:-

a) Habits are not innate or inherited
b) They are formed every time in the same way
c) Habitual actions are performed with growth ease and facility
d) Habitual acts are performed with least attention or no attention.
e) Nervous system is the principle factor in the formation of habits

In the field of education, habits have strong impact. The student who is habitual in concentration in studies for hours in school as well as at home is not easily overcome by fatigue. Habits of thinking regularity, proper reasoning and punctuality help the students in their proper adjustment and in learning and in achieving also the essential knowledge and skills in a short time with great facility.

2.2.2 Study habits

Akinboye (as cited in Maisamari, 2005) defined study as a systematic behaviour pattern acquired and specifically directed towards learning to pass examinations and get good grades. In other words, study is a deliberate undertaking by individuals to acquire knowledge using the required skills. Adisa (2007) posited that study simply means to intentionally give time and attention to something or to learn and discover something.

Study habits typically denotes the degree to which the student engages in regular acts of studying that are characterised by appropriate studying routines occurring in an environment that is conducive to studying. Azikiwe (as cited in Tope, 2011) sees study habits as the adopted way and manner a student plans his private readings, after classroom learning so as to attain mastery of the subject. Good study habits are good assets to learners because they (habits) assist students to attain mastery in area of specialization and consequent excellent performance, while the opposite constitute constraints to learning and performance leading to failure.

According to Mendezabel (2013) study habit is the pattern of behaviour adopted by students in the pursuit of their studies that serves as the vehicle of learning. It is the degree to which the student engages in regular acts of studying that are characterized by appropriate studying routines (e.g. review of material, frequency of studying sessions, etc) occurring in an environment that is conducive to studying. Crede (as cited in Cerna & Paylinshehenko, 2015) described study habits as mainly external factors that facilitate the study process such as sound study routines that include how often a student engages in studying sessions, review the material, self-evaluate, rehearse explaining the material and studying in a conductive environment. Study habits are learning tendencies that enable students to work privately.

Rao (as cited in Lawrence, 2014) defined study habits as the sum of all the habits, determined purposes and enforced practices that the individual uses in order to learn. Pauk et al (as cited in Atsiayasiahi & Maiyo, 2015) viewed study habits as well planned and deliberate pattern of study which has attained a form of consistency on the part of the students towards understanding academic subjects and passing examination. According to Good (as cited in Ghulam, 2013) study habits refer to the students' way of study whether systematic, efficient or inefficient etc. Good study habits are perceived to be the determinants of academic performance, which explains why efforts are made to develop and improve study

habits of students. Elaborating further, Egbule and Omumu (as cited in Abdullahi, 2008) postulated that a common noticeable academic problem among students generally is lack of effective study habits. Nyangwae, Abdullahi and Bawa (2010) posited that secondary school students in Kaduna State have study behaviour problems. Majority of them find it difficult to study after school hours, they lack time management skills and come to school at will. They lack concentration during classes, neglect assignments and are unaware of any study approaches.Issa et al (2012) argued that perhaps due to lack of good reading habits among students, academic performance with respect to their examination result has been dismal nowadays creating a great sense of worry and concern for all stakeholders in the educational sub-sector.

In a literature cited by Rana and Kausar (2011) it was reported that many students fail not because they lack ability but because they do not have adequate study skills. Students who have difficulty in college frequently do not have adequate study habits that affect their academic achievement. Mutsotso and Abenga (2010) asserted that a central problem noted was that many of these students had not learned how to take effective notes and manage time for studying. Similarly, Grace (2013) argued that the process of learning is still a little mysterious but studies do show that the most effective process for studying involves highly active behaviour over a period of time. In other words, to study effectively, one must read, draw, compare, memorize and test himself over time.

2.2.3 Students Common Study Habits

Students at every level of education generally tend to exhibit different types of studying habits, which may either be good and effective or bad and ineffective. Cerna (2015) argued that high effective students are usually found with these study habits; they don't put all subjects in one study session, they plan when they will study, they study at consistent time

of the day/week, they have specific goals for study sessions, they never procrastinate a study session, they start with the most difficult subject first, they review notes before starting an assignment, they avoid being disturbed during study sessions, they use study groups effectively (to study), they review notes, school work and other materials over the weekend and don't cheat in exams.

Study habits can be classified into two; good study habits and bad study habits. According to Katelyn (2013) good study habits are sometimes referred to as positive or productive study habits. They are those pleasant study habits which have the tendency to improve the academic performance of students, or that seem to produce good results. She identified good study habits,which students can employ to improve their academic performance; attending all classes, reviewing notes daily, reading material prior to it being covered in class, study daily, have at least one conference with the professor, develop and learn a word list for the course, read materials to improve your background in the course, attend help session, attend learning resources lab when available, develop a list of possible questions, ask questions in class, study an old exam questions, avoid a last minute cram session, and sleep at least 8 hours the night before exams commences.

Harpe and Row (2009); Exams and Julius (2015) listed some good study habits, which students can imbibe to improve their academic performance as follows:-

1. Studying everyday
2. Creating a quiet place at home or everywhere to study
3. Turning off the phone, TV and other devices that may disturb when studying
4. Studying in a way that suits your learning style
5. Taking regular breaks
6. Studying early (do not wait for last minutes)

7. Studying the hardest things first, spending more time on topics you find difficult.
8. Asking for help if one is struggling with his studies.
9. Taking notes as one studies, as well as organising notes in a notebook or folder.

A number of research studies have unveiled some good study habits which help students in secondary schools and universities to study effectively on their own. EMSTAC (as cited in Kerka, 2007); Abdullahi (2008) maintained that use of the library by students, having regular study time, keeping in good physical form for study by engaging in extra-curricular activities, use of past question papers, budgeting time effectively, reading under ideal conditions, determining the best study time, having regular schedule of study, working with a time table, usually working at the same time each day; reviewing notes as soon as lectures are over make good study habits that lead to better academic performance.Kumani and Chamundeswari (2015) posited that studying is a skill. Being successful in school requires a high level of study skills. Students must first learn these skills, practice them and develop effective study habits in order to be successful. Good study habits include many different skills: time management, self-discipline, concentration, memorization, organization, and effort.

Adeniyi (2011) maintained that good study habits allow students to study independently at home and aspire for a higher educational career. The formation of good study habit in secondary school level further serves as the basis for students' performance in external examination such as West African Examination Council (WAEC), National Examination Council (NECO) and Joint Admissions and Matriculation Board (JAMB). Newport (2007) gave an anecdote of what the high scoring students do to achieve high grades in college such as; minimizing the time spent on assignments while still learning exactly what is needed, taking targeted notes in class, handle reading assignments and problem sets with

ease, preparing efficiently for exams, mastering the art of exam taking, writing incisive critical analysis essays, conducting thorough research and writing standout term papers.

Bad study habits are negative or non-productive study habits, which are undesirable and counter-productive to students' academic performance (John, 2010). Bad study habits clearly put students at a disadvantage and is one of the main reasons student need remedial classes, fall behind in coursework and drop out of school. According to Ebele and Olofu (2017) bad study habits generally range from procrastination, truancy, not taking notes, selective reading, studying while watching television or what is generally regarded as distractive study. Nikki (2013) identified bad study habits to include studying with unserious friends, listening to loud music, studying in uncomfortable conditions, cramming.

Bakare (as cited in Ogoemeka,2013) maintained that poor study habits are non-consonant with efficient learning. He was of the view that students' inadequate or poor time allocation for studies, delay or non-completion of homework and assignments, and defective examination strategies, defective note-taking, poor concentration, and lack of teacher consultation can distort the materials acquired, stored during learning and the reproduction of learned materials during examination.

Crede (2008); Abdullahi (2008) identified some of the most common study behaviour problems or bad study habits, which impede academic success. Some tips on how to avoid these bad study habits were provided particularly by Abdullahi as follows:-

a) **Poor attendance:** This may be the most common students' mistake and the most unavoidable. Attending lecture or being in class regularly during lectures is very critical to successful study.

b) **Poor note-taking skills:** Many students come to school without having mastered the note-taking skills. To succeed in school, it is necessary to learn how to listen actively and take accurate, thorough lecture notes.

c) **Poor time management skills:** Many students are overwhelmed with multiple academic and other responsibilities, so learning to manage time is essential.

d) **Last minute work:** Reading or studying at the last minute for the test or exams or writing assignments are most likely to produce poor result. While it may be possible to avoid the experience of pulling an all-nighter, it is always better to keep up with time by doing things at the right time.

e) **Procrastination:** Putting off or avoiding doing something that must be done has negative effect on performance. It is better things are done at the right time and staying focused.

f) **Failure to read directions:** Reading descriptions very carefully and following directions lead to scoring high grades. It is frustrating to work hard on assignment and receive a low grade because of failure to read instructions.

g) **Over reliance on other students:** Asking a friend to take notes for you and do your assignment is very risky. You may call another student when you have difficulty with an assignment, which may be the case of two heads are better than one, but always do your work yourself.

h) **Plagiarism:** Copying other peoples' work without acknowledging its origin is still a serious problem in schools. In most cases, plagiarism occurs because a student has a looming deadline and panic. This should be avoided.

i) **Failure to ask for help:** Most often some students have the tendency to remain with a problem for their failure to seek out for help either from fellow student or teachers/counsellors. Always call another student when there is difficulty with

an assignment or when you do not understand what has been taught by the teacher.

j) **Failure to set goals:** Goals will help you stay focused and monitor your progress. Simply sitting down to study has little value. You must be clear about what you want to accomplish during your study times.

2.2.4 Other Dimensions of Study Habits

1) **Homework/Assignment and Academic Performance**

Ogoemeka (2013) posited that homework and assignment cover the habit that students have in studying outside the class hours. It assesses how the student organises his/her schedule at home to facilitate learning. Okafor (as cited in Ogoemeka, 2013) maintained that the idea of giving students homework and assignment is because in the pursuit of their studies, instead of being on-lookers waiting for some authority (the teacher) to expose items of information on them, they become also initiators or active participants in learning. According to Akagah (2011) review of students', teachers' and parents' perceptions revealed that homework and assignments help students achieve better grades. Students who spend more than two hours a night on homework frequently showed higher performance levels than students that made little use of homework. Gbore (2006) pointed out that,students who spend more time on homework score higher on measures of performance and attitude than students who spendlittle or no time at all. Similarly, Cooper (2007) maintained that teachers support assigning homework to younger elementary school students due to the potential long-term developmental impact, for it helps elementary school students develop proper study skills, which, in turn, influence grades.

2) Time allocation and academic performance

Time allocation for what to study enables the student to plan carefully so as to cover the academic task ahead and also help to organize one's time for academic work. Before students begin to think about the process of studying, a schedule must be developed (Akagah, 2011). Ogoemeka (2013) postulated that time allocation is the dimension that assesses the habit of a student to avoid certain factors that might distract his/her focus from succeeding in the course of studying.According to Norris (2006) time spent studying has been listed by some scholars regarding what affects academic performance. When considering the relationship between study time and performance, it is not only how much time a student spends studying but also how effectively this time is spent that influences academic performance.

3) Reading/note-taking and academic performance

Ogoemeka (2013) maintained that reading and note-taking is the dimension that assesses students' habit of note-taking. Orderly, labelled and legible note written in a students' own words and the use of key words and some supporting detailed notes have been correlated with positive academic outcomes. Note-taking is an important dimension of study habits. Students who take good notes and study that note usually preserve knowledge for longer time. Note taking is a complex activity involving active listening, sorting out, organizing, reading, recording information, which is received through listening and reading (Odoom, 2007). Taking useful notes and retention of subject matter and to recall facts and information, it forces one to be more alert,thus more interested in studies (Abdullahi, 2008). Good students have the ability to organise what they need and what they hear into meaningful knowledge in terms of their experience which leads to better academic performance. Bashir and Mattoo (as cited in Owusu-Acheaw & Larson, 2014) maintained that reading habits are well planned and deliberate pattern of study which has attained a form of consistency on the part of students

toward understanding academic subject and passing at examination. Reading habits determine the academic achievement of students to a great extent. Both reading and academic achievement are interrelated and dependent on each other. Palini (2012) is of the opinion that effective reading is important avenue of effective learning and reading is interrelated with total educational process and hence, educational success requires successful reading habit.

4) Study concentration and Academic Performance

The domain of concentration relates to the habits a student has formed to avoid distraction while studying. Concentration stresses the positive aspect of attention, therefore, it is necessary that a student should have a good study environment (Ogoemeka,2013). According to Atkinson (as cited in Akagah, 2011) when concentration and attention are impaired, short-term memory could not transfer information to long-term memory hence learning becomes difficult to occur.

5) Written work and Academic performance

Written work is another study habit dimension that relates to the way a student expresses his/her thoughts in an organised manner with attention to neatness and mistakes. If students are untidy, unsystematic and disorganised in their work, not only do they do their work less effectively and less efficiently but they also loose valuable time leading to academic failure (Abdullahi, 2008).

6) Teacher consultation and academic performance

Teacher consultation relates to the students habits of interacting with the teacher in studying effectively. All too often, serious students consult their teachers for help when they have trouble with a particular subject or on any point that is not clear to them. Abdullahi (2008) maintained that failure to ask for help by students is a poor habit that affects academic performance.

2.2.5 Techniques for Developing Good Study Habits

It is imperative for any student who desires to be successful to resolve todevelop good study habits. Monday (2008) maintained that developing good study habits in school will help student succeed in class and achieve educational goals. In the same vein, Agba (2013) posited that good study habits help students to: attend classes very often and do so on time. It also helps them to submit their assignment on time, read or prepare very well for test and exams, take down notes and develop the point independently, ask relevant questions in class; thereby having good grades at the end of the term or semester.

Kemjika (as cited in Akagah, 2011); Egbule and Omumu (as cited in Abdullahi, 2008) identified some techniques, which are important means of developing good study habits as follows:-

1. Preparing a plan of action and budgeting the time properly. In so doing, the student must;
2. Have a study scheme such as private reading time- table
3. determine the number of hours to study for each
4. Plan time for extra-curricular activities
5. Plan out time for afternoon rest and siesta and sound sleep at night, all of which are necessary for mental refreshment
6. Giving more time for studying difficult subjects in the time schedule and follow it sincerely.
7. Breakingthe whole material into small paragraphs, practice summarizing each paragraph quietly in the mind.
8. Developing the attitude of questioning yourself and others about the point that you have read.

9. Preparing brief notes of what you read, besides noting down the name of the book and numbers in it, if using other books.
10. For rechecking, it is better you underline the important point, topics and questions
11. Memorizing the formula, principles, symbols, and rules that are needed again and again.
12. Improving one's reading through the development of faster reading skills, which include;

- Close comprehension skills, which require concentration and training in linguistic skills
- Skimming through to recognize and remember the points, leaving behind other less important information
- Identifying the "topic sentence" in each paragraph

13. Improving one's note taking
14. Having regards for the position of the body when studying
15. There should be no distracting noise during study hours
16. There should be thoroughness in every study by making sure there is understanding on what is being read with assurance of long term memory
17. Forming the habit of reviewing or revising what has been read on a regular basis to get familiarized with the concepts therein
18. Cultivating the habit of using dictionaries of encyclopedia indices
19. Avoid monotony in your study by varying subjects and resting the mind with a variety of your study, rather than cessation from study
20. Cultivate the habit of reading in the library as much as possible
21. Form study group to discuss some difficult academic works
22. Ensure that there is a strong motivation to study at all times

2.2.6 Factors Affecting Study Habits

Etsey (as cited in Akagah,2011) postulated that the important factors that influence study habits of students include the following:-

i. **Home:** Home is the first school for every child and the mother is the first teacher. If the home environment is good, automatically the child nature in school will be good as well. Hence the relationship with family members such as parents, brothers and sisters influence the child performance.

ii. **School:**After the home, the child spends more time in school, which necessitates the school environment to be good. The teachers and the peer group also play an important role in the child study habits. Parents should keep an eye on the friends of their children because with good friends, the child learns good habits.

iii. **Curriculum:**Curriculum is also one of the factors that facilitate the development of good study habits. Curriculum should be constructed on the standards of the child.

iv. **Personality:**Personality of the student is also a very important factor in developing good study habits. If the student gets easily adjusted with the environment, that student develops good study habits.

v. **Intelligence:** Intelligence also plays a pivotal role in developing good study habits of the student. It is general observation that intelligent students stand in top positions.

vi. **Community:** A good community provides necessary facilities for the development of good study habits. Community have to arrange the communitycenters such as library facilities, community resource centres and information centres among others.

Sheera (as cited in Ebele & Olofu, 2017) postulated that study habits can be affected by factors such as: age of a student, home environment, studying materials, television and computer games, social network (facebook), students' determination and aspiration,

financial and economic status of parents, surrounding such as (entertainment center, games center, etc.), rule of the schools, teaching style of teachers, leisure of the students, some activities in school, availability of library, nature of friends and peer group, assignment and homework restriction, parents' educational background, parents not interested and supportive in helping their children's study, household chores, family problem, procrastination and poor time management, students comfort level, the noise level, the lightening level and availability of items that might be necessary to study or to enhance concentration.

2.2.7 Gender and Study Habits

A significant body of research has reported gender differences in the study habits of students. Noel Levitz (2007) indicated that first year females bring stronger study habits to college, whereas first year males bring more confidence to their math and science classes. Vedevalli (as cited in Akagah, 2011) found that male college students had better study habit than female college students. Magnuson (2007)argued that male students generally perform better than female students in most cases, but in some other cases, female students possess the ability to recall better than their male counterpart.

2.3 Academic Performance

Research evidence has shown that studies have been conducted on the concept of academic performance in Nigeria and in foreign countries. Findings of these studies clearly affirmed that scholars use the terms achievement and performance interchangeably in relation to academic work of students. Academic means education or study while achievement is one's success in doing by effort or skill.According to Ugwuadu (2010) academic and achievement linked together means students' performance or attainment in a subject. Lavin (2005) argued that academic performance refers to some method of stating or expressing a student's

academic rank. Generally this is a grade for a course, an average for a group of courses in a particular subject area, or an average for all courses expressed on a 0 to 100 or other quantitative scale.

Oloyede (2006) asserted that academic performance refers to educational outcome. It is a yardstick used to determine how far a student has mastered a course of study within a given period of time. He also noted that academic performance is the actual performance of student in academic subjects and basic knowledge. Oke (as cited in Hassan, 2016) stated that student's academic performance is a measure of how well they have mastered the learning tasks presented to them, the way they handle controversial issues and pass relevant judgment and the level at which they pass examination.

Yekeens (as cited in Ogbaji, 2016) noted that academic performance is also the academic achievement of students in various subjects offered in school over a specific period of time. This was buttressed by Salawu (as cited in Ogbaji, 2016) asserting that academic achievement is the performance of students in classroom tests, terminal examinations, junior secondary school certificate examinations, senior secondary school certificate examinations, undergraduate and post graduate end of semester examinations. In other words, academic performance refers to the knowledge obtained or skills developed in school, which is often depicted by test scores. Similarly, Bello (2006) opined that examination is the most viable instrument to measure student's academic performance. Scott (2012) argued that academic performance is how well students accomplish their tasks and studies and that, it is the grades that determine the level and quality of student's performance. Grades are the student's score; and grading system varies greatly by country and school. Common scales include percentage from 1-100, lettering A-F and grade point average (GPA) from 0-4.0 or above.

According to Gerda (as cited in Yammama, 2016) academic performance is the attainment obtained by a child from the lessons taught, which may include experiences, knowledge, skills and the like. He explained that the child's good or poor performance does not depend on any attributes that the child is born with but to the complex responses to his family background, his home environment, social contacts, his teachers, the overall school environment and assessment procedure. Hartup (2005) viewed academic performance as the process where students' success in school is measured to determine how they stand up to others in the same areas.

As career competition grows ever fiercer in the working world, the importance of students doing well in school has caught the attention of parents, teachers, government and education departments alike. The tracking of academic performance fulfills a number of purposes; areas of achievement and failure in a students' academic career need to be evaluated in order to foster improvement and make full use of the learning process, results provide a framework for talking about how students fare in school, and a constant standard to which all students are held. Performance results also allows students to be ranked and sorted on a grade that is numerically obvious, minimizing complaints by holding teachers and schools accountable for the components of each and every grade (Annie & Howard, 2006)).

2.3.1 Measurement of Academic Performance

According to Bello (2006) examination is the most viable instrument to measure students' academic performance. Similarly, Academic performance is commonly measured by examinations, cumulative gross point average (CGPA) or continuous assessment, but there is no general agreement on how it is best tested or which aspects are most important procedural knowledge such as skills or declarative knowledge such as facts (Bell, 2012). Furthermore, Kuo (2011) noted that academic achievement is variously estimated by grade

point average, standardized achievement test scores, level of degree attained depending on the study.

Measuring academic performance accurately is an important part of planning for a child's education. However, no one source of information should be used to assess academic achievement as it may not adequately cover all the variables associated with the concept. A student may demonstrate knowledge on one instrument and not onanother. Using good strategies to assess academic achievement from multiple sources will facilitate the acquisition of vital information and best possible educational planning. Academic performance of students can be measured in the following ways:-

a. Administration of standardized achievement test: A standardized test has to be given by someone who meets the requirement in the testing manual. Standardized achievement tests compare the students being tested with the average student of the same age in a sample of students across the country (Bell, 2012). The advantage of these types of tests is that they are well researched and usually have good validity and reliability.

b. Analyze State testing results: Each State chooses its own standardized test to measure achievement and each defines its own level of proficiency on that test.

c. Using informal surveys to measure academic performance: Teacher's survey based on what has actually been taught in the classroom can be a good indicator of academic achievement. These are sometimes included in textbooks or they can be easily made up. They are a veritable tool to use to see what has been learned, what has been retained over time and what has not been mastered and needs to be re-taught.

d. Grade reports: Grades are also important tools to measure academic performance. They are a great indicator of academic success and short-term learning. However

grades do not necessarily measure long-term learning or mastery. For example, some students may do well on tests because they can memorize information and relate it at test time. However, it may be questionable wether it was actual learning if they forget it right after the test and cannot demonstrate that knowledge at a later time. Grades are partially based on that short term knowledge that comes from weekly test and homework and only part of the grade is long-term knowledge (Lavin, 2005).

2.3.2 Gender and Academic Performance

Gender has been identified as one of the factors affecting academic performance. According to Raychaudhury (2010) students' academic performance depends on a number of socio-economic factors like students attendance in class, family income, mothers and fathers education, teacher- students ratio, sex of the student and distance of schools. Eamon (2005) opined that female students received more rules or supervision from parent and in turn are more likely to flexibly maintain planned behaviours hence, perform better in school than their male counterpart. Whereas Cohn and Modecki (2007) posited that male students are especially likely to demonstrate manipulator ability, which in term makes them perform better in academics than their female counterpart.

2.3.3 Factors Affecting Academic Performance

Academic performance of secondary school students can be greatly influenced by other factors apart from intelligence. Some of these factors are stated below.

a) Location of the school: A plethora of studies have indicated that schools located in the urban areas are better equipped than those in the rural areas. In the same manner, students in the urban schools perform better than those in the rural schools. This was corroborated by Zappala, Kwesiga and Sentamu (as cited in Hassan, 2015) who carried out a study on the differences in academic performance among 55 rural students and 65 urban students.

The study revealed that urban students were doing better in almost every measure investigated. They also found that in every measure of scholastic aptitude examination, urban students surpassed rural students.

b) School background: Students' educational outcome and academic success is greatly influenced by the type of school they attend. The school they attend is the institutional environment that sets the parameters of a students' learning experience. Depending on the environment, a school can either open or close the doors that lead to academic achievement. Illuminating, Considine, Zappala and Kwesiga (as cited in Hassan, 2015) argued that the type of school a child attends influence educational outcomes, in other words, school has an effect on the academic performance of students.

c) Socio-economic status: According to Kaye (as cited in Basant, 2010) socio-economic status or class means the combination of income, education and occupation, which usually correlated. Similarly, Teodor (2012) maintained that socio-economic status refers to a persons' position in any given group, society or culture. Conger and Dunnello (2007) defined parents' socio-economic status as family income, parental education level, parental occupation and social status in the community. According to Sirin (2005) high income enables parents to give their children the advantages that money can buy. High income parents provide their children with household equipment like television, computer, books, radio, good education, etc. which help them perform better in school. Freijo (2006) argued that various aspects of the family economics, social and cultural conditions have a consistent impact on the academic performance of students in all countries. Students whose parents have better jobs and higher level of educational attainment are exposed to more educational resources at home and tend to have higher level of literacy performance.

d) Communication factors: Irfan and Khan (2012) identified communication as one of the factors affecting students' academic performance in intermediate examination. According to Hansen and Joe (as cited in Hassan, 2015) communication factors can be categorised into two external and internal classroom factors. These factors strongly affect the students' performance. The internal classroom factors include students' competence in English, class schedules, class size, English text books, learning facilities, environment of the class, complexity of the course material, teachers' role in the class, technology used in the class and exams systems. External classroom factors include extra-curricular activities, family problem / financial, social, gender and age differences, etc. are factors that can affect student's performance.

e) Academic Environment: Academic environment is the most effective variable for learning and has positive or negative relationship with the academic performance or grade level of students in school. According to Kernan, Bossart and Wheat (2011) Student's performance is significantly correlated with satisfaction with academic environment and the facilities of library, computer Lab, etc. in the institution.

f) Teaching Methods/Aids: Teachers apply various methods of transmitting knowledge to their students. Some of these methods are noted as effective, while others are not. Effective teaching methods assist the teacher in delivering his task successfully, thereby stimulating learning. Richard (2010) maintained that the ways the teacher deliver lesson in the class and the availability of teaching resources to stimulate learning affects the performance of students significantly.

2.3.4 Study habits and Academic Performance

Many studies have proved that study habits and academic performance have a symbiotic relationship such that the former most often determines the latter. According to Ebele and Olofu (2017) study habit is one of the greatest students or learning factors that hugely influence students' academic achievement. If underminedby students at all levels, teachers, administrators, parents and guardians, school counsellors and the government then, the trend and menace of students abysmal performance in both internal and external examinations would continue to boom and become more devastating and alarming.

Mark and Howard (2009) postulated that the most common challenge to the success of students in all ramifications is a lack of effective or positive (good) studyhabit. They further maintained that if students can develop a good study habit and with good discipline, they are bound to perform remarkably well in their academic pursuit. Hussain (as cited in Ebele& Olofu, 2017) stressed that lack of effective or positive (good) study habits is a critical study problem among students at all levels. Marc (2011) also argued that good study habits lead to good grades, while good grades lead to admission to better colleges and universities, possibly with a scholarship thrown in. This in turn, will lead to a great career.

Baquiran (2011) reported that a great deal of research provides evidence that study habits and study attitudes are both significant variables, which determine the academic performance of students. Bhatnagar and Gupta (as cited in Hussain, 2006) argued that for better student achievement, it is necessary to aid pupils make progress in their education by removing their difficulties and developing good study skills. Onwuegbuzie (as cited in Hussain, 2006) conducted a series of studies to find out the relationship between study habits and academic success and reported positive relationship between study habits and academic success. Similarly, Hussain (2006) maintained that secondary school students in public schools of Pakistan come from economically poor and average income families. They have

poor study habits, hence they show poor academic performance. A great deal of evidence is present to show the positive correlation between study habits and academic achievement.

2.4 Theoretical Framework

2.4.1 Thorndike's Theory of Law of effect

According to Akagah (2011) this theory was propounded by Edward Lee Thorndike after his experiments to study how non-reflexive behaviour can be modified from experiences. In other words, Thorndike expanded the stimulus–response theory by exploring the role of experience in the Stimulus-Response(S – R) connection. His experiments involving cats and a puzzle box led him to formulate basic principles of learning, which include:

a) **Law of effect** – this holds that responses to a situation that are followed by satisfaction are strengthened, while responses that are followed by discomfort are weakened.
b) **Law of exercise:** this highlights the effect of practice on the Stimulus – Response (S–R) connections indicating that practice strengthens and smoothens the connection; and
c) **Law of readiness –** which emphasizes the role of experience in the strengthening and weakening of the Stimulus – Response (S-R) connections.

The theory holds that responses that bring about satisfaction are strengthened and therefore, more likely to be repeated again, while responses which were unpleasant or brought little or no satisfaction would not recur. In effect, this is the rationale behind reward and punishment. When a student performs well in school, he or she is rewarded, hence thesatisfaction for learning hard, so as to obtain the reward in future. This explains that learningis strengthened

when accompanied by a pleasant or satisfying feeling and that learning is weakened when associated with an unpleasant feeling.

Thorndike sees reinforcement as an agent of habit formation and one of the factors that can influence learners' study habits and task performance. Iheanacho (as cited in Akagah 2011) supported this view and suggested that behaviour that is reinforced tend to become habitual and reinforcement increases the probability that any given response will be repeated. Deducing from Thorndike's theory, a students' study habits can be strengthened or weakened by the nature and frequency of stimulus response he or she receives from his or her environment, which can stimulate the students to respond positively or negatively to his or her study and task performance.

With regards to the principle of readiness, Thorndike proposed that when a response is ready to be linked to a particular stimulus (ready in the sense of the necessary nerve structures being connected), discomfort would be the result. Readiness implies a degree of single–mindedness and eagerness. Individuals learn best when they are physically, mentally, and emotionally ready to learn, and they do not learn well, if they see no reason for learning. If students have a strong purpose, a clear objective and a definite reason for learning something, they make more progress than if they lack motivation (Akagah, 2011)

2.4.2 Hull's Theory of drive-reduction

This theory was propounded by Clark Leonard Hull covering such areas as hypnosis, concept formation, test and measurement, learning and motivation (Akagah, 2011). Hull used the term drive to refer to the state of tension or arousal caused by biological or psychological needs. Thirst, hunger and the need for warmth are all examples of drives. He argued that humans and animals will them repeat any behaviour that reduces these drives.

Hull's theory focused mainly on habits strengthening, drive reduction and intervening. He related learning to the need of the organism. This theory of learning is called drive – reduction theory. The organism is motivated to do some action in order to release tension and in the course of the action, the organism encounters many stimuli and makes a continuous series of responses. When these stimuli occur with a response, there is a chance for an association, which happens only when it is followed by a reward or punishment, which is motivation (Chauham, 2005). The term motivation has been used by psychologist to mean drives and incentives, which account for behaviour and subsequently habit formation (Akagah, 2011).

The theory classified reinforcement into primary and secondary levels. Primary reinforcement is the condition of need reduction, while secondary reinforcement is the involvement of a stimulus aggregate that has been closely associated with need reduction stimulus. Hull maintained that when a stimulus emits a certain type of response and it is accompanied by a reinforcer (capable of reducing the drive or drive stimuli), the association between the stimulus and that response is strengthened. Repetition of the reinforcement then helps to progressively strengthen the association formed (Akagah, 2011).

Drive is essential in order for responses to occur (the student must want to learn). Stimuli and responses must be detected by the organism in order for conditioning to occur (the student must be attentive). Response must be made in order for conditioning to occur (student must be active). Conditioning only occurs if the reinforcement satisfied a need (the learning must satisfy the learners wants) (Wikipedia http//en.m.wikipedia.org2017).

Hull deduced learning to habit formation. The success of learning behaviour is measured through a concept termed as habit strength and symbolised as SHr. He considers habit strength as the strength of the association between a stimulus and a response. It gives up

with the number of trials (pairing between a stimulus and a response) provided there is reinforcement in every trial.

2.5 Relevance of the Theories to the Study

Thorndike's theory of reinforcement explained how good study habits can be developed and generated. The principle of effect is based on the emotional reactions of the students; it has a direct relationship with motivation. The students will strive to continue doing what provided pleasant effect to continue learning. Positive reinforcement is apt in leading to success and motivating the learner. Responses closely followed by satisfying consequences are more likely to be repeated. It is therefore deducible that students study habits can be strengthened or weakened by the nature and frequency of stimulus response received from the learners' environment,whichincludes all those around him. Similarly, the principle of exercise holds that repeating a habit increases its strength since practice makes perfect. Students learn best and retain information longer when they have meaningful practice and repetition. Gbore (2006) maintained that learning is better acquired and mastered as soon as the learner attends to it.

Hull's theory of drive reduction also buttressed how positive study habits could be developed and generated. The theory stressed the role of reinforcers in stimulating behaviours. According to Hull, some of the reinforcement that can stimulate the learner to study include; making the classroom environment inviting, setting aside space for student to work independently. This can be done by creating a comfortable corner equipped with books, magazines, cassettes and other resource materials that can help intend learning beyond class work. Parents and teachers can help learners develop positive study habits by injecting stimulus that can help elicit the learner's interest such as praises, helping the child arrange

study materials, creating a condusive atmosphere for study, providing necessary learning materials for studies among other things.

2.6 Review of Empirical Studies

The attention is on the review of relevant and related studies carried out onstudy habits and academic performance to help us understand how far researchers have gone concerning the area of study.

According to Kelli (2009) for students to succeed in their studies, they must be able to appropriately assimilate course content, digest it, reflect on it and be able to articulate the information in written and/or oral form. What is fundamental is the ability of a student to acquire effective study habits. In other words, developing good time management skills is very important. Students must realize that there is time to be in class, a time for study, time for family, time to socialize and time to just be alone.

Marc (2011) observed that procrastination can be overcome with proper study habits and improving ones study habits is the key to better studying. Being organised and having homework routines are the most important things in helping a child/student develop good study habits for life. Developing good study habit help spell success and a student will find himself working more efficiently and experiencing lesser stress in the process. He adds that having effective study habits create a more efficient academic environment. Planning your study schedule as a student in advance and faithfully sticking to it saves time.

Ashish (2013) noted that if students must ensure academic success throughout the entire year, it is important to ditch bad study habits and establish good ones. He further maintained that no matter what age or academic level, employing effective study strategies can make all the difference between acing a class, barely passing or worse and failing miserably. Knowing exactly what does and doesnot work on a personal level, even tracking

study patterns and correlating it with related grades and then proactively creating a study plan and schedule around the proven effective methods, is the most powerful study tool of all.

Agba (2013) posited that unseriousstudents do study anyhow without specific techniques and such students are most likely to perform below average. Thus, good study habits help students to: attend classes very often and do so on time, it also helps them to submit their assignment on time, read or preparevery well for tests and exams, take down notes and develop the points independently, ask relevant questions in class; thereby having good grades at the end of the term or semester.

According to Cerna (2015) among other aspects, high performing students give opinions based on reading materials and class content, use the expression “I think”, ask questions in class, are on time, ask for feedback regarding assignments, take notes in class and while studying, look for the professor after class, sit at the front of the classroom and attend every class, study in silence and alone at regular times along the whole semester, read the material about two weeks before the exams, review notes before the exam, talk about the content with other students. On the other hand, low performing students remain quiet the whole semester, miss atleast three classes per semester, are normally late, sit at the back of the classroom, do not take notes in class and never look fortheprofessor after class hours.

Norris and Hudson (2010) postulated that when considering the relationship between study time and performance, it is not only how much time a student spends studying but also how effectively this time is spent that influences academic performance. Their study on performance of college students: impact of study time and study habits found that some study habits had a positive direct relationship on student performance but others had a negative direct relationship.

Fazal (2012) identified various study skills used by learners and ascertain which study skill is more related to academic achievement. Results of the study indicate significant relationship of time-management skills, reading and note taking skills with academic achievement. Students with higher academic achievement used a wide range of study skills as compared to students with lower academic achievement.

Rana and Kausar (2011) observed that many students fail not because they lack ability but because they do not have adequate studying skills. Students who have difficulty in college frequently do not have adequate study habits that affect their academic achievement. A central problem noted was that many of these students had not learned how to take effective notes and manage time for studying.

Sawar, et al (2010) found discrepancy between the study attitudes of high and low-achieving students. High-achieving students had a more positive attitude towards study in that they detected and reacted positively to the favourable aspects of the situation they found themselves in, while the low-achieving students tended to be fault-finder reacting to the negative aspects of study such as distractions and minor annoyances. The high-achieving students found tertiary work an interesting challenge, accepted the restrictions and conformed to the demands made upon them more readily, while the low-achievers appeared to lack high-level motivation. The more successful group was also found to be more realistic and discriminating in their assessment of those situations which were highly relevant to scholastic achievement, such as discipline and work priorities, and they were better organised in both their work and leisure activities.

The study of Osa–Edoh and Alutu (2010) which examined the usefulness of imbibing in the students study habits as a means of enhancing their academic performance, revealed a high correlation between study habits and students' academic performance. It suggests that it

is only when students imbibe or cultivate proper study habits that their academic performance can be improved upon.

Nuthana and Yenagi (2009) found significant correlation between study habits and academic achievement in their study. It further revealed that reading and note taking habits, habits of concentration and preparation for examination had significant correlation with academic achievement. They pointed out that students who are better in reading and note–taking, well prepared for the board examination and have concentration may have better academic achievement.

Moghadan and Cheragian (2009) conducted a research on study habits and their relationship with academic performance among students of Abadan School of Nursing. The study sample was 150 students and data was collected using the Palsane and Sharma Study Habit Inventory Questionnaire. Result of the study showed that mean score of the students' study habits was 48.26 out of 90. 11.33 per cent of the students had unsatisfactory study habits, while 80.7 per cent and 8 per cent had relatively satisfactory and satisfactory study habits respectively. There was a significant, weak and positive relationship between the students' study habits and their academic performance ($p = 0.001$, $r = 0.27$).

Gurung, Weidert and Jeske (2010) carried out a study on how students study. The study used a 35-item Study Behaviour Checklist and did a correlation of students' responses to the SBC with scores on students' final exams. Findings showed that the more students attended class, answered all questions on the study guide, used practice exams to study and were able to explain problems using the material, the higher were their exams scores.

Yang (2011) conducted a study using a Q factor analysis to understand the study behaviour and habits of undergraduate students. The Q factor was used to classify students as either proactive learners with well organised study behaviour or disorganised procrastinators

based on their self–reported study behaviour. Findings of the study showed a significant difference in the academic performance of the two groups of students. Student type was found to be a significant predictor of academic achievement beyond and above students attribute variables.

Hassanbeigi et al (2011) in their study of the relationship between various study skills and academic performance of university students noted that the study skills scores of students with GPA of 15 and above (out of 20) were statistically higher than those students with GPA of less than 15 in all of the seven skills (time management and procrastination, concentration and memory, study aids and note–taking, test strategies and testanxiety, organizing and processing information, motivation and attitude and reading and selecting the main idea).

Ogoemeka (2013) conducted a study to determine which of the eight study habits skill components namely; homework/assignment, time allocation, reading/note-taking, study period procedure, concentration, written work, examination and teacher consultation constituted the best predictor of academic performance of teachers trainee in Nigerian higher institutions. The study also sought to establish whether any significant sex differences existed in the predictive function of these study habits skill components for the academic performance of the students. A standardized instrument was used to collect data from 300 College of Education students. The data collected were analysed by means, standard deviation, t-test statistics and Pearson's product moment co-efficient. The findings indicated that homework/assignment was potent predictor of academic performance of the students. The study also revealed that the best predictor variable of the academic performance of the second year students was study period procedures, while it was homework/assignment for the third year students. It was also revealed from the result that there was significant sex difference in five out of the eight study habits skill components, all in favour of females.

Mendezabal (2013) conducted a study to investigate the relationship of students study habits and attitudes and their performance in licensure examinations. Participants were graduates in school year 2009–2010 from different programs, which require licensure examination. A total of 239 students comprised of 127 males and 112 females participated in the study. The survey of study habits and attitudes (SSHA) developed by Brown and Holtzman was used to assess the study habits of the respondents. Three research questions were formulated to guide the conduct of the study. Descriptive statistics (mean, standard deviation and percentile ranks) were used to describe the study habits and attitudes of the students and their performance on licensure examination, while the relationship of study habits and attitudes with performance in licensure examination was examined by the use of Pearson correlation-coefficient. The findings indicated a significant relationship between study habits and attitudes with academic performance in licensure examination.

Atsiayasiah and Maiyo (2015) carried out a study on the relationship between study habits and academic achievement of students of Spicer Higher secondary school, India. The population of the study included the 9^{th} standard students and respondents were selected through the use of stratified random sampling. The study habits inventory developed by N.M. Palsane and school examination records were the main instruments for data collection. Quantitative method was used to analyse field data collected. Interpretation and recommendations of findings was made accordingly as per computed Pearson product moment coefficient of correlation. Results of the study showed a positive relationship of 0.66 between study habits and academic achievement.

Ebele and Olofu (2017) investigated the impact of study habits on secondary school students' academic performance in the federal capital territory, Abuja. The study was guided by one null hypothesis. The sample of the study constituted of 1050 senior secondary school students drawn from the FCT, Abuja. The instrument used for data collection was a

questionnaire, chi – square was used for data analysis. The findings of the study revealed that there is significant relationship between study habits and students' academic performance.

Anwar (2013) investigated the degree of relationship between study habits and academic achievement of senior secondary school students. Study Habit Inventory was used to determine the study habits of the students. The population of the study included all the senior secondary school students of Lucknow city of U.P. India. Sample was selected through purposive random sampling technique. Two hypotheses were formulated and tested using Pearson's correlation and t–test at 0.05 and 0.01 level of significance. Findings of the study revealed a positive relationship between academic achievement and study habits and the degree of relationship is high.

A study conducted by Khurshid, Tanveer and Qasmi (2012) examined the relationship between study habits and academic achievement among hostel living and day scholars university students. A standardized 49 items inventory developed by Dennis H. Congos was used for the measurement of study habits. Sample was selected through random sampling technique. The sample constituted 200 males and females university students drawn from leading public sector university of Rawalpindi and Islamabad. Results of the study showed that there is positive correlation between study habits and academic achievement.

Bashir and Mattoo (2012) conducted a research on study habits and academic performance among adolescents (14-19) years to determine the impact of study habits on academic performance. The Study Habit Inventory was used to determine the study habits of the students. Findings of the study revealed a highly significant relation among various variables of study habits and academic performance.

Atsuwe and Moses (2017) investigated the influence of study habits on the academic performance of Physics students in Federal University of Agriculture Makurdi. It focused on

the extent to which some study habit constructs such as homework, time allocation, reading and note-taking and teacher consultation influence the academic performance of physics students in federal university of Agriculture Makurdi. A survey research design was employed for the study and study habit inventory questionnaire was administered to a sample of 200 physics students, drawn using purposive sampling from 200 to 400 levels students of physics B.Sc (Ed), physics B.Sc and industrial physics B.Sc. Results of the study revealed that reading and note-taking, homework and assignment, time allocation have great influence on the academic performance of students, however, teacher consultation has negligible influence on students' academic performance.

Muraina, et al (2014) carried out a research on the impact of note-taking and study habit on academic performance among selected secondary school students in Ibadan, Oyo State, Nigeria. Descriptive research design was used in the study. Nine hundred respondents were selected from three selected local governments in Oyo State, Nigeria. Three instruments were used for the study; the note-taking scale, study habit scale and academic performance scale. Results of the study showed that note-taking and study habit when pulled together have significant effect on the students' academic performance. In terms of magnitude of contribution, note-taking made the most contribution to the prediction of academic performance.

Adebayo (2015) examined the impact of time management on students' academic performance in higher institutions in Nigeria. Hypotheses were generated to identify the constraints of time management among students. The result revealed that procrastination, prioritisation and planning were strong indices that affected the students' performance in relation to time management. The study strongly recommended that students have to be conscious of time in preparing their academic activities so that the level of their academic performance can be high.

Demir, Kilinc and Dogan (2012) investigatedthe effect of curriculum for developing efficient studying skills on academic achievement and studying skills of learners. The population of the study included the 7th grade primary school students in Turkey. The study habit inventory and achievement test were used to determine the study habits and academic achievement of the students. Results of the study indicated that students can acquire efficient studying skills by means of curriculum for developing efficient studying skills and they increase their academic achievement.

Oluwatimilehin and Owoyele (2012) investigated the relationship between various aspects of study habits and students' academic achievement in core subjects among junior secondary school students in Ondo state. The Study Habits Inventory and performance test were used to determine the study habit and academic achievement of the students. Findings revealed that of all the study habits subscales, teacher consultation was most influential, while time allotment, concentration, note–taking, reading and assignment were regarded as less integral to students' academic achievement.

Singh (2011) conducted a research to investigate the study habits of higher secondary students and its relationship with academic achievement. The Study Habit Scale was used to determine the study habits of the students. Findings of the study revealed a significant correlation between study habits and academic achievement in higher secondary school students.

A study conducted by Owusu-Acheaw and Larson (2014) assessed the reading habits among students and its effect on academic performance: A study of students of Koforidua Polytechnic Ghana. A questionnaire was used for data collection and from a total of 1052 copies of questionnaire distributed, 1000 copies representing 95% were filled and returned.

Results of the study showed that reading habit has influence on academic performance and there is a relationship between reading habit and academic performance.

Barrera (2017) analysed whether homework had any positive effect on the academic performance of 16 seventh grade students in a very small and rural school district. This was a mixed study (qualitative and quantitative). Students' grades, district assessment, state assessment and teacher surveys were analysed. Result showed that students improved their Maths and English language arts district assessment scores when compared from fall to spring of the 2016-2017 school year. The result also showed that students that turned in homework more than 40% of the time had higher Maths district and state assessment scores than those with less than 40%. Students that had a higher homework completion rate also had the highest Maths and English language arts state assessment scores.

Yu (2011) investigated the impact of study habits, skills and attitudes on the performance of students in an introductory financial accounting college course. The SurveyQuestionnaire was used to determine the study habits of the students. Result of the study revealed that only student perception of teacher effectiveness and level of effort influence accounting performance. Time spent studying, attendance in review classes conducted in tutorial centers, motivation, and study habits, have no significant effect. Further analysis comparing high and low performers showed that study habits were significant. Students who performed better are those who did more in terms of reading ahead, doing their homework, participating in class, and cramming for exams.

Pashalidis (2006) examined the impact of homework on performance in the content areas of mathematics and science. The participants were a fourth grade, inner city classroom in Rochester, New York. Data was collected over two semesters. Findings suggest that homework completion contributes to higher performance in academics.

Nouhi, Shakoori and Nakhei (2008) conducted a study on study habits and skills, and academic achievement of students is Kerman Univeristy of medical scinces. The instrument used for data collection was a questionnaire. Samples were selected through systematic cluster sampling technique. Results of the study showed weakness in study habits and study skill and deficit in planning and time management, concentration and note–taking skill. Study skills had a significant correlation with educational achievement while study habits correlation with educational achievements was not significant.

2.7 Summary

The chapter gave an overview of the variables under investigation. The concepts of study habits as well as academic performance were discussed in detail and the relationship between these variables. Theoriessuch as Thorndike's theory of law of effect, which views reinforcement as an agent of habit formation and Hull's theory of drive–reduction, which related learning to the need of the organism were critically examined.

Studies conducted by numerous researchers on study habits and academic performance were reviewed. Most of these studies were carried out outside Nigeria and they recommended good study habits in assisting academic performance of students. Although a plethora of research have been carried out on study habits and academic performance of students in some African countries and Asia, there have been relatively very few empirical studies on study habit indices such as homework/assignment, time allocation, reading/note-taking, study concentration, written work and teacher consultation vis-à-vis academicperformance in Kaduna Metropolis. Hence, this study examined the relationship between study habits and academic performance of senior secondary school students in Kaduna metropolis, Nigeria.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter discusses the research design, population of the study, sample and sampling techniques, instrumentation, validity and reliability, pilot testing, procedure for data collection as well as procedure for data analysis.

3.2 Research Design

The study was conducted using the correlational research design. This design was chosen because it is appropriate when attempting to determine the relationship between two or more variables. Alstein (2012) stressed that correlational research design is a form of planned collection of data from a large population via questionnaire by choosing a random sample in order to determine whether a relationship or association exists between or among variables.

3.3 Population of the Study

The population of this study consisted of all SSS II students selected from (8) public senior secondary schools in Kaduna Metropolis. The schools were distributed in the two educational zones in Kaduna Metropolis, that is; Kaduna zonal inspectorate division and Sabon Tasha inspectorate division with a total population of **2707** students, (1311) female and (1396) male. . Two out of the eight schools are boarding, three are only female students, two are only male students, while three are co-educational. This is shown inTable 3.1 below.

Table 3.1Population Distribution ofSSS II Female and Male students by zone

SN	Zonal inspectorate	Schools	Female	Male	Population
1	Kaduna	GGSS Kawo	350	----	350
		Rimi College	----	360	360
		Kaduna Capital Sch.	184	286	470
		GGSS Maimuna Gwarzo	210	----	210
2	Sabon Tasha	Queen Amina College	310	----	310
		GSS Barnawa			
		GSS Makera	-----	230	230
		GSS Sabon Tasha	143	305	448
		8			
			114	215	329
Total			1311	1396	2707

3.4 Sample and Sampling Technique

A total sample size of (340) was selected for the study. This was selected from (8) public senior secondary schools in Kaduna Metropolis using Krejcie and Morgan (1970) table for selecting sample size as a guide. Two sampling techniques; the simple random technique and the proportionate sample technique were adopted in selecting the sample. The simple random sampling technique confers on each case or subject in the population equal chance of being included in the sample. A proportionate ration scale was used to allocate the sample size for each school because not allthe selected schools have equal number of students; thus the higher the population, the higher the sample size. This is shown in Table 3.2 below.

Table 3.2 Sample Distribution of SSS II students according to their schools

SN	Schools	Population	Sample
1	GGSS Kawo	350	42
2	Rimi College	360	45
3	Kaduna Capital School	470	60
4	GGSS Maimuna Gwarzo	210	30
5	Queen Amina College	310	40
6	GSS Barnawa	230	32
7	GSS Makera	448	53
8	GSS Sabon Tasha	329	38
Total		2707	340

3.5**Instrumentation**

Two instruments were used to collect data for this study. The first one was adapted Study Habit Inventory (SHI) and the second one was Academic Performance Test on English and Mathematics (APTEM). The Study Habit Inventory used has three parts: Part "A" consists of

demographic variables of respondents, Part “B” consists of thirty item questions tapping six aspects of study habits, while Part “C” has the Academic performance test on English and Mathematics.

3.5.1 Study Habit Inventory (SHI)

The Study Habit Inventory (SHI) was adapted and used to collect information on six common study habit indices of students. The instrument was developed by Bakare (1977) and it consists of two Parts (A and B). Part A was the bio-data of the respondents: Part B was structured into sections A,B,C,D,E and F based on six components of study habit; A- Homework/ Assignments, consists of (6) items, B- Time Allocation, consists of (6) items, C- Reading/ Note-taking, consists of (9) items, D- Study Concentration, consists of (3) items, E- Written Work, consists of (4) items, while F- Teacher Consultation, consists of (2) items, making a total of (30) items. These items were structured in the form of direct questions toward tapping six study habit components. The responses to each item were graded on a five point Likert scale. The possible responses to each item on the questionnaire are five (Almost Never, Less than half of the time, About half of the time, More than half of the time, and Almost always) with scores 1,2,3,4 and 5 respectively, for a positive question and the scores reversed for a negative question. The scores for all questions in each section were totaled and converted to the Stanine equivalent using the table of Stanine Norms for the SHI. The Stanine equivalent of the total score on the inventory (addition of all section’s scores) was provided as SHI TOTAL.

3.5.2 Academic Performance Test on English and Mathematics (APTEM)

The Academic performance test items on English and Mathematics were constructed by the researcher in collaboration with the English Language and Mathematics teachers from a secondary school that is not included in the population. It consists of twenty (20) item questions on English Language and ten (10) item questions on Mathematics. All the thirty (30) questions were set from SSS II syllabus. Each item on English test was scored (5) marks totaling (100) marks and Mathematics test was scored (10) marks for each question totaling (100) marks as well. The scores in both English and Mathematics tests were added together, then, divided by two in order to get the average scores for each student for measurement of their academic performance. The average scores in APTEM were compared with the scores in SHI to determine the relationship between study habits and academic performance of students.

3.5.3 Direction of the Instruments

The direction of the instruments was converse relationship, which means the higher the Mean scores from study habits questionnaire, the higher will be the academic performance of respondents and vice-versa.

3.5.4 Validity of the Instrument

The adopted Study Habit Inventory (SHI) and Academic Performance Test on English and Mathematics (APTEM) from SSS II syllabus were shown to the researchers' supervisors and 3 lecturers in the Department of Educational Psychology and Counselling who checked and ascertained the face, content and construct validity of this instrument. The researcher made necessary corrections based on the observations, suggestions and inputs by the experts. Some of the original items of the SHI have been jettisoned, reframed or re-worded to ensure content validity and the effectiveness of the exercise.Section "D" of the SHI which was originally titled "concentration" was modified as "study concentration" by the assessors. Nwogu (as

cited in Mamman, 2015) suggested that validating instrument requires the service of a panel of experts who ensure that the items correspond with the purpose of the study.

3.5.5 Pilot Testing

Bakare (1977) established the reliability and validity of the Study Habit Inventory with a test-retest reliability figure of 0.83 p < 05. However, the researcher conducted a pilot test using thirty (30) SSS II male and female respondents of Government Secondary School Nassarawa, Chikun, Kaduna State with permission obtained from the principal of the school. The school was not part of the schools selected for the study. Thirty (30) questionnaires were distributed to 15 male and 15 female students, data collected were analysed using split-half method of estimating reliability coefficient to measure the internal consistency. Study Habit Inventory has the reliability figure of .988 and Academic Performance Test on English and Mathematics has the reliability figure of .832. From their responses, reliability of the instruments was re-established and the instruments were prepared for final data collection. Burns and Grove (as cited in Mamman, 2015) maintained that a pilot test is a smaller version of the actual study done in preparation of a proposed study. The result indicated that the questionnaire measured what it was intended to measure.

3.5.6 Reliability of the Instrument

The data collected from the pilot study were subjected to statistical analysis to determine the reliability. The Cronbach Alpha coefficient was used to measure internal consistency of the instruments. The result showed reliability score of .988 for SHI and .832 for APTEM. According to Ola and Morakinyo (2010) an instrument is considered reliable if it lies between 0 and 1, and that the closer the calculated reliability coefficient is to 0, the less reliable is the

instrument, and the closer the reliability coefficient is to 1, the more reliable is the instrument. This therefore showed that the two instruments were reliable.

3.6 Procedure for Data Collection

A letter of introduction was obtained by the researcher from the Department of Educational Psychology and Counselling, Ahmadu Bello University, Zaria. This served as a form of introduction to participants after which the researcher visited the schools. After obtaining permission from the principals, the researcher had access to the students and other valuable information needed for the study. A total of (340) copies of the instruments were produced and distributed to the respondents. The instruments were administeredwithin an interval of 45minutes with the assistance of three teachers who were trained to serve as research assistants. The data collection exercise lasted for (2) weeks after which the researcher collected the instruments for analysis.

3.7 Procedure for Data Analysis

The data obtained were subjected to statistical analysis using Minitab Statistical Software. Descriptive statistics such as frequency and simple percentage were used to present the demographic data of the respondents. Mean and standard deviation were used to answer the research questions. Pearson Product Moment Correlation (r) was used to test the null hypotheses One to Six (1-6). All the stated hypotheses were tested at 0 .05 level of significance.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1Introduction

This chapter presents the analysis on demographic data of the respondents, analysis of research questions, hypotheses testing, summary of major findings as well as discussion on findings. The data collected were analysed using simple frequency count, mean and standard deviation to answer the research questions. The hypotheses ware tested and analysed using Pearson product-moment correlation.

4.2 Demography of the Respondents

Three hundred and fourty (340) respondents of senior secondary school students selected from two educational zones in Kaduna Metropolis were used for the study. The demographic characteristics of the respondents are tabulated using frequencies and percentages respectively in Table 4.1 below.

Table 4.1: Distribution of Respondents according to Gender

Gender	Frequency	Percent (%)
Male	178	52
Female	162	48

Total	**340**	**100**

The gender level of the study respondents shown in table 4.1 above indicated that 178 representing 52% are males, while 162 representing 48% are females. This shows that both male and female are well represented in this study.

Table 4.2: Distribution Table According to School

NAME OF SCHOOLS	Frequency	Percent **(%)**
Queen Amina College	40	11.8
Govt. Sec. Sch. Baranawa	32	9.4
Govt. Sec. Sch. Makera	53	15.6
Govt. Sec. Sch. Sabon Tasha	38	11.2
Govt.Girls Sec. Sch. Kawo	42	12.4
Rimi College	45	13.2
Kaduna Capital School	60	17.6
Govt. Girls Sec. Sch. MaimunaGwarzo	30	8.8
Total	340	100

Table 4.2 showedQueen Amina College representing 11.8%, Govt. Sec. Sch. Baranawa representing 9.4%, Govt. Sec. Sch. Makera representing 15.6%, Govt. Sec. Sch. Sabon Tasha representing 11.2%, Govt.Girls Sec. Sch. Kawo representing 12.4%, Rimi College

representing 13.2% while Kaduna Capital School has the highest representation of 17.6% and finally Govt. Girls Sec. Sch. MaimunaGwarzo with the least representation of 8.8%.

4.3 Research Questions

The six research questions for the study were analysed and answered using frequency count, mean, standard deviation and simple percentage. The results were presented as follows:

Research Question 1: What is the relationship between homework/assignment and academic performance of senior secondary school students in Kaduna Metropolis?

On this research question, items of the questionnaire from number 1-6 were used and responses were analysed using the frequency count, mean and standard deviation as presented in Table 4.3 below.

Table 4.3: Mean and SD Score of relationship between homework/assignment and academic performance of SSS students in Kaduna Metropolis

Variables	N	Mean	St. Dev
Homework/Assignment	340	19.701	1.599
Academic performance	340	77.830	10.296

Table 4.3 showed that Academic performance has mean score of 77.830 and standard deviation of 10.296, while the variable of Homework/Assignment has mean score of 19.701 and standard deviation of 1.599.

Research Question 2: What is the relationship between time allocation and academic performance of senior secondary school students in Kaduna Metropolis?

On this research question, items of the questionnaire from number 7-12 were used and responses were analysed using the frequency count, mean and standard deviation as presented in Table 4.4 below.

Table 4.4: Mean and SD Score of relationship between time allocation and academic performance of SSS students in Kaduna Metropolis

Variables	**N**	**Mean**	**St. Dev**
Time Allocation	340	16.240	1.602
Academic performance	340	77.830	10.296

Table 4.4 showed that Academic performance has mean score of 77.830 and standard deviation of 10.296, while the variable of Time Allocation has mean score of 16.240 and standard deviation of 1.602.

.**Research Question 3:**What is the relationship between reading, note-taking and academic performance of senior secondary school students in Kaduna Metropolis?

On this research question, items of the questionnaire from number 13-21 were used and responses were analysed using the frequency count, mean and standard deviation as presented in Table 4.5 below.

Table4.5: Mean and SD Score of relationship between reading/note-taking and academic performance of SSS students in Kaduna Metropolis

Variable	N	Mean	St.Dev
Reading/Note Taking	340	20.220	1.484
Academic performance	340	77.830	10.296

Table 4.5 showed that Academic performance has mean score of 77.830 and standard deviation of 10.296, while the variable of Reading/Note taking has mean score of 20.220 and standard deviation of 1.484. This indicated a positive relationship betweenreading/note taking and academic performance of senior secondary school students in Kaduna Metropolis.

Research Question 4: What is the relationship between study concentration and academic performance of senior secondary school students in Kaduna Metropolis?

On this research question, items of the questionnaire from number 22-24 were used and responses were analysed using the frequency count, mean and standard deviation as presented in Table 4.6 below.

Table 4.6: Mean and SD Score of relationship between study concentration and academic performance of SSS students in Kaduna Metropolis

Variable	N	Mean	St.Dev
Study Concentration	340	10.018	0.782
Academic performance	340	77.830	10.296

Table 4.6 showed that Academic performance has mean score of 77.830 and standard deviation of 10.296, while the variable of Study Concentration has mean score of 10.018 and standard deviation of 0.782.

Research Question 5: What is the relationship between written work and academic performance of senior secondary school students in Kaduna Metropolis?

On this research question, items of the questionnaire from number 25-28 were used and responses were analysed using the frequency count, mean and standard deviation as

presented in Table 4.7 below.

Table 4.7: Mean and SD Score of relationship between written work and academic performance of SSS students in Kaduna Metropolis

Variable	N	Mean	St.Dev
Written Work	340	8.6804	9.572
Academic performance	340	77.830	10.296

Table 4.7 showed that Academic performance has mean score of 77.830 and standard deviation of 10.296, while the variable of Written Work has mean score of 8.6804 and standard deviation of 9.572.

Research Question 6: What is the relationship between teacher consultation and academic performance of senior secondary school students in Kaduna Metropolis?

On this research question, items of the questionnaire from number 29-30 were used and responses were analysed using the frequency count, mean and standard deviation as presented in Table 4.8 below.

Table 4.8: Mean and SD Score of relationship between teacher consultation and academic performance of SSS students in Kaduna Metropolis

Variable	N	**Mean**	**St.Dev**
Teacher Consultation	340	75.088	9.187
Academic performance	340	77.830	10.296

Table 4.8 showed that Academic performance has mean score of 77.830 and standard deviation of 10.296, while the variable of Teacher Consultation has mean score of 75.088 and standard deviation of 9.187.

4.3 Hypotheses Testing

The six null hypotheses were tested using Pearson Moment Correlation Analysis (r) in this study. The condition for retaining or rejecting the hypothesis was settled as 0.05% alpha level of significance. Therefore, the statistical analyses were presented in the following tablesby the help of statistical software Minitab, then result interpretation.

Hypothesis 1: There is no significant relationship between homework/assignment and academic performance of senior secondary school students in Kaduna Metropolis.

Table 4.9 PPMC Statistics showing relationship between homework/Assignment and academic performance of SSS students in Kaduna Metropolis

Variable	**N**	**Mean**	**St.Dev**	**r**	**P**

Homework/Assignment	340	19.701	1.599		
Academic performance	340	77.830	10.296	-0.011	0.840

(Correlation is not significant at the 0.05 level ns).

Table 4.9 showed the correlation index (r) of -0.011 and p value of 0.840 which is greater than the alpha level of significance of 0.05, therefore, there was no significant relationship between homework/assignment and academic performance of senior secondary school students in Kaduna Metropolis. Consequently, the null hypothesis which stated that there is no significantrelationship between homework/assignment and academic performance of senior secondary school students in Kaduna Metropolis wasretained.

Hypothesis 2: There is no significant relationship between time allocation and academic performance of senior secondary school students in Kaduna Metropolis

Table 4.10 PPMC Statistics showing relationship between time allocation and academic performance of SSS students in Kaduna Metropolis

Variable	**N**	**Mean**	**St.Dev**	**r**	**P**
Time Allocation	340	16.240	1.602		
Academic performance	340	77.830	10.296	0.058	0.281

(Correlation is not significant at the 0.05 level ns).

Table 4.10 showed the correlation index (r) of 0.058 and p value of 0.281 which is greater than the alpha level of significance of 0.05, therefore, there was no significant relationship between time allocation and academic performance of senior secondary school students in Kaduna Metropolis. Consequently, the null hypothesis which stated that there is no

significant relationship between time allocation and academic performance of senior secondary school students in Kaduna Metropolis was retained.

Hypothesis 3: There is no significant relationship between reading/note taking and academic performance of senior secondary school students in Kaduna Metropolis

Table 4.11: PPMC Statistics showing relationship between reading/note-taking and academic performance of SSS students in Kaduna Metropolis

Variable	N	Mean	St.Dev	r	P
Reading/Note Taking	340	20.220	1.484		
Academic performance	340	77.830	10.296	0.096	0.017

(*.Correlation is significant at the 0.05 level 1-asterics).

Table 4.11 showed the correlation index (r) of 0.096 and p value of 0.017 which is less than the alpha level of significance of 0.05, therefore, there was significant relationship between reading/note-taking and academic performance of senior secondary school students in Kaduna Metropolis. Consequently, the null hypothesis which stated that there is no significantrelationship between reading/note-taking and academic performance of senior secondary school students in Kaduna Metropolis was rejected.

Hypothesis 4: There is no significant relationship between studyconcentration and academic performance of senior secondary school students in Kaduna Metropolis.

Table 4.12:PPMC Statistics showing relationship between study concentration and academic performance of SSS students in Kaduna Metropolis

Variable	N	Mean	St.Dev	r	P
Study Concentration	340	10.018	0.782		

Academic performance	340	77.830	10.296	0.204	0.001

(*.Correlation is significant at the 0.05 level1-asterics).

Table 4.12showed the correlation index (r) of 0.204 and p value of 0.001 which is less than the alpha level of significance of 0.05, therefore, there was significant relationship between studyconcentration and academic performance of senior secondary school students in Kaduna Metropolis. Consequently, the null hypothesis which stated that there is no significantrelationship between concentration and academic performance of senior secondary school students in Kaduna Metropolis wasrejected.

Hypothesis 5: There is no significant relationship between written workand academic performance of senior secondary school students in Kaduna Metropolis

Table 4.13:PPMC Statistics showing relationship between written work and academic performance of SSS students in Kaduna Metropolis

Variable	**N**	**Mean**	**St.Dev**	**r**	**P**
Written Work	340	8.6804	9.572		
Academic performance	340	77.830	10.296	0.027	0.619

(Correlation is not significant at the 0.05 (ns)

Table 4.13 showed the correlation index (r) of 0.027 and p value of 0.619 which is greater than the Alpha level of significance of 0.05, therefore, there was no significant relationship between written work and academic performance of senior secondary school students in Kaduna Metropolis. Consequently, the null hypothesis which stated that there is no significantrelationship between written work and academic performance of senior secondary school students in Kaduna Metropolis was retained.

Hypothesis 6: There is no significant relationship between teacher consultationand academic performance of senior secondary school students in Kaduna Metropolis.

Table 4.14PPMC Statistics showing relationship between teacher consultation and academic performance of SSS in Kaduna Metropolis.

Variable	N	Mean	St.Dev	r	P
Teacher Consultation	340	75.088	9.187		
Academic performance	340	77.830	10.296	-0.063	0.244

(Correlation is not significant at the 0.05 level ns).

Table 4.14 showed the correlation index (r) of -0,063 and p value of 0.244 which is greater than the alpha level of significance of 0.05; therefore, there was no significant relationshipbetween teacher consultation and academic performance of senior secondary school students in Kaduna Metropolis. Consequently, the null hypothesis which stated that there is no significantrelationship between teacher consultation and academic performance of senior secondary school students in Kaduna Metropolis wasretained.

4.4 Summary of Findings

From the results of analysis presented, the following findings were derived;

1. There was no significant relationship between homework/assignment and academic performance of senior secondary school students in Kaduna Metropolis. (r =-0.011, p=0.840).
2. There was no significant relationshipbetween time allocation and academic performance of senior secondary school students in Kaduna Metropolis. The p value is greater than 0.05 alpha level of significance (r =0.058, p=0.281).
3. There was significant relationship between reading/note-taking and academic performance of senior secondary school students in Kaduna Metropolis. The P value of 0.0017 is less than the alpha level of significance of 0.05 (r =0.096, p= 0.017).
4. There was significantrelationship between studyconcentration and academic performance of senior secondary school students in Kaduna Metropolis. The P value is less than 0.05 alpha level of significance (r =0.204, p=0.001).
5. There was no significant relationship between written work and academic performance of senior secondary school students in Kaduna Metropolis. The p value is greater than 0.05 alpha level of significance (r =0.027, p=0.619).
6. There was no significant relationship between teacher consultation and academic performance of senior secondary school students in Kaduna Metropolis. The p value is higher than 0.05 alpha level of significance (r = -0,063, p= 0.244).

4.5. Discussion of Findings

The aim of the research was to determine the relationship between study habits andacademic performance of senior secondary school students in Kaduna Metropolis. All research questions were answered using frequency counts mean score and standard deviation, while hypotheses were tested using Pearson Product Moment Correlation Statistics. All hypotheses were tested at 0.05, alpha level of significance.

The findings and result of the study revealed that there was no significantrelationship between homework/assignment and academic performance of senior secondary school students. Hypothesis one was accepted because of the level of correlation index of 0.011 indicating that relationship does not exist between homework/assignment and academic performance of senior secondary school students in Kaduna Metropolis. This was in line with the findings of Oluwatimilehin and Oyewale (2012) which revealed that of all the study habits sub-scales, homework/assignment is less integral to students' academic achievement. The result showed that students who make little use of homework/assignment are likely to have low academic performance.

The result also showed that there was no significant relationship between time allocation and academic performance of senior secondary school students. Hypothesis two was retained because the p value is greater than alpha level of significance of 0.05 and the correlation index r is 0.058indicating that relationship does not exist between time allocation and academic performance of senior secondary school students in Kaduna Metropolis. The result showed that students who allocate less time for studying, spend this time ineffectively are likely to have low academic performance. This was in line with the findings of Hassanbeigi, et.al (2011) which revealed a significant negative relationship between time management and academic performance of students.

The findings and result of the study revealed that there is significant positive relationship between reading/note-taking and academic performance of senior secondary school students. Hypothesis three was rejected because the p value of 0.017 is less than the alpha level of significance of 0.05 indicating that relationship exists between reading/note-taking and academic performance of senior secondary school students in Kaduna Metropolis. The result was in line with the findings of Hassanbeigi, et.al (2011) which revealed a significant relationship between reading/note-taking and academic performance of students. It was also in concert with the findings of Nuthana and Yenagi (2009) which revealed a correlation between reading/note-taking habit and academic performance.

The result also showed that there was significant positive relationship between study concentration and academic performance of senior secondary school students in Kaduna Metropolis. Hypothesis four was rejected because the P value of 0.001 is less than the alpha level of significance of 0.05 at the correlation index (r) of 0.204. This showed that there was significant positive relationship between study concentration and academic performance of senior secondary school students in Kaduna Metropolis. Higher study concentration leads to higher academic performance. This was in line with the findings of Hassanbeigi, et.al (2011) which revealed a significant relationship between study concentration and academic performance.

The study also revealed that statistically, there was no significant relationship between written work and academic performance of senior secondary school students in Kaduna Metropolis.Hypothesis five was retained because the p value of 0.619 is greater than the alpha level of significance of 0.05 in the study. This result showed that students who are low in written work have low academic performance and it corresponds with the findings of Abdullahi (2008) which revealed a significant negative relationship between written work and academic performance of students.

The findings and result of the study showed that there was no significant relationship between teacher consultation and academic performance of senior secondary school students in Kaduna Metropolis.Hypothesis six was retained because the P value of 0.244 is greater than the alpha level of significance of 0.05 at the correlation index (r) of 0.063. The result showed that students who fail to ask for help from their teacher have low academic performance. This is in line with the findings of Cerna (2015) which revealed a correlation between teacher consultation and academic performance.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the study, conclusion, contribution to knowledge, recommendations as well as suggestions for further studies.

5.2 Summary

The study was on the relationship between study habits and academic performance of senior secondary school students in Kaduna Metropolis, Nigeria. In order to achieve this, six specific objectives were raised, six research questions were asked, six null hypotheses were posited and six basic assumptions were made.

In chapter two, literature was reviewed based on the variables of the study that included study habits such as homework/assignment, time allocation, reading/note-taking, study concentration, written work and teacher consultation and academic performance. Also, literature on theories that guided the study such as theory of law of effect and theory of drive-reduction, was reviewed. Studies related to the study were also discussed and finally a summary.

The study adopted the correlational survey design. The population for the study was 2707 senior secondary school students (SSS II) in eight government secondary schools in Kaduna Metropolis. The sample size was (340) respondents made up of 178 males and 162 females. Two reliable instruments were used for data collection, these are: Study Habit Inventory and Academic Performance Test on English and Mathematics.

Statistical tools were used to analyse data collected at 0.05 level of significance. In the final analysis, the study established the following result:-

There was no significant relationship between homework/assignment, time allocation and academic performance of respondents.There was significant relationship between reading/note-taking, study concentration and academic performance of respondents. There was no significant relationship between written work, teacher consultation and academic performance of respondents.

In chapter five, summary of the study, conclusion, contribution to knowledge, recommendations as well as suggestions for further studies were presented.

5.3 Conclusion

Based on the findings, conclusions were drawn as follows:-

Negative relationship exists between homework/assignment and academic performance, the respondents' negative disposition towards study outside the classroom makes them to perform poorly academically. Time allocation has been observed not to have positive relationship with academic performance, respondents' negative time management leads to poor academic performance. Reading/note-taking have been observed to have positive relationship with academic performance, respondents' commitment to reading and taking good note leads to high academic performance. It has been observed that Study Concentration has positive relationship with academic performance, studying with high level concentration stimulates the mind towards better understanding and good academic performance. Written work has been observed not to have positive relationship with academic performance, respondents' inability to express thoughts in an organized manner with attention to neatness and mistakes lead to poor academic performance. Negative relationship exists between teacher consultation and academic performance, respondents' failure to ask for help from teacher affects academic performance.

5.4 Contributions to Knowledge

The study confirmed that good study habits affect academic performance positively, while bad study habits affect academic performance negatively as highlighted below;

1. The finding revealed that students who make little use of homework/assignment have low academic performance
2. It also showed that students who allocate less time for studying, spend this time ineffectively have low academic performance
3. The finding indicated that students who have higher commitment to reading and taking good notes have high academic performance.
4. It showed that students who study with high concentration have better understanding resulting in good academic performance.
5. It also revealed that students' inability to express thoughts in an organized manner with attention to neatness lead to poor academic performance.
6. The finding indicated that students' failure to ask for help from teacher affects academic performance.

5.5 Recommendations

The following recommendations were made based on the findings of the study:-

1. All dimensions of study habits, especially those related to homework/assignment, time allocation, reading/note-taking, study concentration, written work and teacher consultation should be given consideration when planning any programme for senior secondary school students in the country especially in Kaduna State.
2. School administrators and teachers should support and encourage counselling initiatives and programs such as talks and workshops for students on " How to develop effective study habits and how to prepare for examination ".

3. To improve the academic performance of students, school psychologists, counsellors and teachers need to sensitize students on the importance of developing and imbibing good study habits towards high academic performance.
4. Training programmes and seminars should be organized for teachers to equip them with adequate knowledge and skills on study behavior problems and approaches.

5.6 Suggestions for Further Studies

This study is by no means exhaustive, further studies may be carried out on;

1. Relationship between study habits and academic performance of senior secondary school students in Kaduna State.
2. Relationship between study habits and academic performance of students in SSS I and SSS 3 in Kaduna Metropolis, Nigeria.
3. Relationship between study habits and academic performance of Junior secondary school students in Kaduna Metropolis, Nigeria.
4. Relationship between study habits and academic performance of Ahmadu Bello University Students.
5. Relationship between study habits and academic performance of senior students in private secondary schools in Kaduna Metropolis, Nigeria.

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APPENDIX 1

STUDY HABITS INVENTORY

Introduction:

This Questionnaire is part of the research for a Master Thesis related to "Relationship Between Study Habits and Academic Performance of Senior Secondary School Students in Kaduna Metropolis". The results of this survey will be used for academic purposes only. The information you provide will be used strictly for the purpose of this research and will be treated with utmost confidentiality.

Part A:

Demographic Data

Instruction: (Please tick (√) in the appropriate box that applies to you.

1. Name of School ……
2. Sex: Male ( ) Female ( )
3. Class: ……

Part B:

The following is a list of Questions concerning students' habits and methods of study. Read each statement carefully and answer it as accurately and as truthfully as possible. Put an **X**in the circle within the column that best describes your habits. The key to the columns are: ***Almost Never, Less than Half of the Time, About Half of the Time, More than Half of the Time, Almost Always.***

	Almost Never	Less than Half of the	Almost Half of the Time	More than Half of the	Almost always
Section A: Homework and Assignments					
1. When your assigned homework is too long or unusually hard, do you either stop or study only the easier parts of the lesson?	◯	◯	◯	◯	◯
2. If you have to be absent from class, do you make up missed lessons and notes immediately?	◯	◯	◯	◯	◯
3. Even though an assignment is dull and boring, do you stick to it until it is completed?	◯	◯	◯	◯	◯
4. Do you put off doing written assignments until the last minutes?	◯	◯	◯	◯	◯
5. Do you complete and submit your	◯	◯	◯	◯	◯

Total Score Section A

assignments on time?

6. Do you begin your assignments as soon as the teacher gives them to you and not allow them to pile up?

Section B: Time Allocation

7. Do you waste too much time talking or listening to the radio for the good of your studies?

8. Do you find that having many other things to do causes you to get behind in your school work?

9. Do problems outside of the classroom – with other students or at home – cause you to neglect your school work?

10. Do you study for at least three hours each day after classes?

11. Is your time unevenly distributed; do you spend too much time on some subjects and not enough on others?

12. Do you spend too much time reading fiction (novels), going out, etc. for the good of your school work?

Total Score Section B

Section C: Reading and Note Taking

13. In taking notes, do you tend to write down things which later turn out to be unimportant?

14. After reading several pages of an assignment, do you find yourself unable to remember what you have just read?

15. Do you find it hard to pick out the important points of a reading assignment?

16. When reading a long assignment, do you

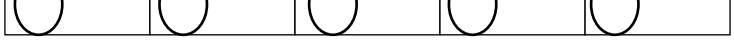
stop now and then to try to remember what you have read?	
17. Do you have to re – read material several times because the words don't have much meaning the first time you go over them?	◯ ◯ ◯ ◯ ◯
18. Do you have trouble picking out the important points in the material read or studied?	◯ ◯ ◯ ◯ ◯
19. Do you go back and recite to yourself the material you have studied, rechecking any points you find doubtful?	◯ ◯ ◯ ◯ ◯
20. Do you miss important points in the lecture while copying down notes on something which has gone before?	◯ ◯ ◯ ◯ ◯
21. Do you pronounce words to yourself as you read?	◯ ◯ ◯ ◯ ◯
	Total Score Section C

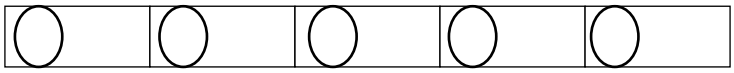
Section D:Study Concentration

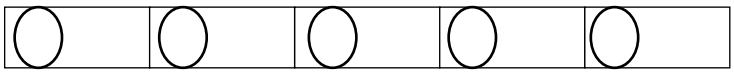
22. Do you find that, day dreaming distract your attention from your lessons while studying?	
23. Do you find it hard to keep your mind on what you are studying for any length of time?	
24. Do outside interruptions disturb you while studying?	

Section E: Written Work

25. Do you correct errors on the papers which your teachers have marked and returned	





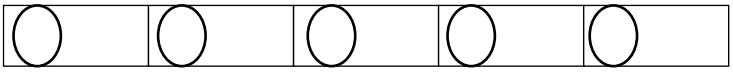


to you?

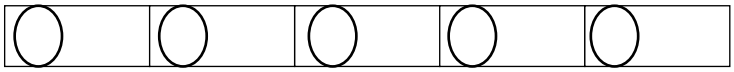
26. Do you have trouble saying what you want to say on tests, essays and other written work?

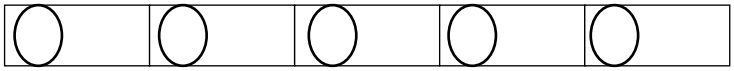
Total Score Section C

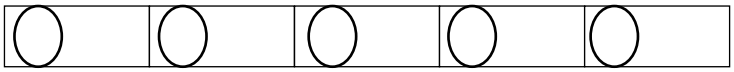
27. Do your teachers criticize your written work for being poorly planned or hurriedly written?



28. Do you give special attention to neatness on essays, reports and other written work?



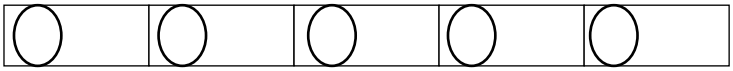




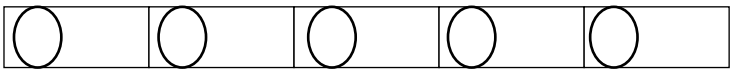
Total Score Section C

Section F: Teacher Consultation

29. When you are having trouble with a particular subject, do you try to talk it over with the teacher?



30. Do you hesitate to ask a teacher for further explanation on a point that is not clear to you?



Total Score Section C

PART : C

Academic Performance Test on English Language for SSS 2

Instruction: From the list of the words lettered A to E choose the one that is most nearly opposite in meaning to the underlined word and that will correctly fill the gap in the sentence.

1. At first John was furious with the children, but when he saw what they had done he was…….

(a) Angry (b) pleased (c) sorry (d) disappointed (e) crossed.

2. The defence called two witnesses whom they also cross examined.

(a) Energy (b) state council (c) Jury (d) Prosecution (e) Plaintiff

3. The patient's condition was expected to improve but instead it……

(a) Ameliorated (b) heightened (c) climaxed (d) relapsed (e) deteriorated,

4. He expected his nephew and was surprised to see his……..

(a) Cousin (b) spouse (c) grandson (d) niece (e) stepson.

5. Radio …….. and receptions were greatly improved with the installation of relay stations.

(a) Production (b) transmission (c) exertion (d) communication (e) conception.

6. Mineral is considered natural resource, whereas industrial products are ……..

(a) Unnatural (b) synthetic (c) foreign (d) artificial (e) indigenous.

7. Some governments are still talking of nationalizing business, while others believe in …… government owned enterprises.

(a) Privatizing (b) publicizing (c) monopolizing (d) disanointing (e) dispossessing

8. The doctor was acquitted after being……. by a woman patient of seducing her

(a) Sentenced (b) defended (c) accused (d) discharge (e) impeached

9. The stock market ended a volatile week even though oil price appear ……..

(a) Nervous (b) profitable (c) stable (d) busy (e) high

10. At first they denied everything, but later they……..that they had been involved in the robbery.

(a) Refused (b) forbade (c) conceived (d) admitted (e) ignored

From the words lettered A to E, choose the word or group of words that best completes each of the following sentences;

11. The …….qualification for this job is a first degree in electrical engineering.

(a) Small (b) minimum (c) scale (d) mean (e) average.

12. The old man invited …….. of his three sons to his dead bed.

(a) The senior (b) the oldest (c) the youngest (d) the elder (e) the seniority.

13. Everybody approved of the …… increase in the reading of newspapers.

(a) Common (b) rampant (c) widespread (d) negligible (e) doubtful.

14. ……. you pick me up this evening, please?

(a)Shall (b) Do (c) Should (d) Will

15…… the mother wonder aloud.

(a) When would you children grow up? (b) When will you children grow up? (c) When you children would grow up? (d) When you children would grow up?

16. He asked her……

(a) that is the food ready (b) if the food was ready (c) whether the food is ready (d) is the food ready

17. I asked him how much ……but he made no reply.

(a) You want (b) he want (c) he wanted (d) did he want

18. The prefect confirms that the bully ….. the junior student before the tutor arrived

(a) Slaps (b) has slapped (c) had slapped (d) was slapped

19. The woman complains that she …….fed up with her husband and wants a divorce.

(a) Was (b) none (c) both (d) is

20. The teacher invited the twins to the party, but …..of them could go.

(a) Neither (b) none (c) both (d) either.

Academic Performance Test on Mathematics for SSS 2

(1) For how long must I leave N4, 000 in a bank to earn the interest of N4, 800, the rate being 3%?

(A) 3years (B) 8years (C) 4years (D) 7years (E) 9years

(2) Find the mean of the numbers 1, 3, 4, 8, 4 and 7

(A) 4 (B) 5 (C) 6 (D) 7 (E) 8

(3) Evaluate 23_8 X 23_8

(A) 5424_8 (B)5382_8 (C) 1764_8 (D) 6417_8 (E) 5624_8

(4) Find $\log_{10} 75$ without using log table

(A) 0.875 (B) 2.785 (C) 1.875 (D) 1.075 (E) 5.872

(5) Increase N330 in the ratio 6:5

(A) N180 (B) N275 (C) N395 (D) 390 (E) N385

(6) Agirl walks 6km at a speed of $4\frac{1}{2}$ km/hr. How many minutes does her journey take?

(A) 80min (B) 65min (C) 75min (D) 27min (E) 35min

(7) The second term of a geometric progression is 6 and the sixth term is 96. Find the tenth term

(A) 1536 (B) 768 (C) 384 (D) 512 (E) 914

(8) Expand (6+y) (5+ xs)

(A) Xy2 + 30 + 5y (B) xy^2+6x+5y+30 (C) x^2+ 6x+5y+30 (D) 30+6x+5y+30 (E) x2y+5y+30

(9) If sinQ = $\frac{3}{5}$ and Q is an acute angle. What is the value of tanQ

(A) 3/4 (B) 4/3 (C) 4/5 (D) 3/5 (E) 2/3

(10) SIMPLIFY $\sqrt{19/16}$

(A) $2\frac{1}{4}$ (B) $1\frac{1}{4}$ (C) 5/4(D) 25/9 (E) $3\frac{1}{2}$

APPENDIX 2

DATA PRESENTATION 1

SCORE: A/P	SCORE:TC	H/A	T/A	R/N	SC	W/W
70	80	20	16	21	11	10
80	80	20	18	22	11	9
60	60	22	16	20	10	10
90	80	22	18	20	11	10
75	60	18	16	18	11	9
85	80	22	18	22	11	10
90	70	20	18	20	10	10
65	80	18	16	18	10	9
90	60	20	18	20	11	9
75	70	18	18	18	10	10
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75	70	22	14	20	11	8
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80	70	20	14	20	9	7
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70	60	18	18	22	10	9
65	60	18	16	22	11	9
60	90	18	14	20	10	10

```
KEY:
    H/A  - Homework/Assignment
    TA   - Time Allocation
    R/N  - Reading/Note-taking
SC – Study Concentration
WW – Written Work
TC – Teacher Consultation
```

APPENDIX 3

MINITAB RESULT

```
Welcome to Minitab, press F1 for help.
```

Results for: Worksheet 2

Descriptive Statistics: SCORE: A/P

```
          Total
Variable  Count    Mean   StDev  Maximum
SCORE: A/P  341  77.830  10.296   95.000
```

Descriptive Statistics: SCORE: T/C

```
          Total
Variable  Count    Mean  StDev
SCORE: M    341  75.088  9.187
```

Descriptive Statistics: H/A

```
          Total
Variable  Count    Mean  StDev
H/A         341  19.701  1.599
```

Descriptive Statistics: T/A

Variable	Total Count	Mean	StDev
T/A	341	16.240	1.602

Descriptive Statistics: R/N

Variable	Total Count	Mean	StDev
R/N	341	20.220	1.484

Descriptive Statistics: SC

Variable	Total Count	Mean	StDev
SC	341	10.018	0.782

Descriptive Statistics: W/W

Variable	Total Count	Mean	StDev
W/W	341	8.6804	1.0930

Correlations: SCORE: A/P, H/A

Pearson correlation of SCORE: A/P and H/A = -0.011
P-Value = 0.840

Correlations: SCORE: A/P, TC

Pearson correlation of SCORE: A/P and SCORE: M = -0.063
P-Value = 0.244

Correlations: SCORE: A/P, T/A

Pearson correlation of SCORE: A/P and T/A = 0.058
P-Value = 0.281

Correlations: SCORE: A/P, R/N

Pearson correlation of SCORE: A/P and R/N = 0.096
P-Value = 0.017

Correlations: SCORE: A/P,SC

Pearson correlation of SCORE: A/P and SC = 0.204
P-Value = 0.000

Correlations: SCORE: A/P, W/W

```
Pearson correlation of SCORE: A/P and W/W = 0.027
P-Value = 0.619
```