Correlation Of Study Time on The Test Scores of Pupils and Their Academic Performance

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Abstract — The feat of the educational system centers on the academic performance of the learners of which the amount of time spent by the learners in studying their lessons is one of the factors being considered in the quest for academic excellence.

The main purpose of this study was to determine the correlation of study time to the test scores of pupils and their academic performance of the one hundred sixty-nine (169) Grade Six pupils under Rizal District, Rizal, Zamboanga del Norte. The study used the descriptive correlational method of research with quantitative data employing a researcher-made questionnaire.

Based on the data gathered and analyzed, it was found out that pupils spent time to study during lunch break and during night time with an average of 26.25 minutes and 41.21 minutes respectively. In terms of test scores, the pupils got high scores in Science, English and Mathematics Subject with a very satisfactory academic performance as reflected in their numerical ratings. Further, it was found out that there is a significant relationship between the amount of study time and academic performance of pupils. Therefore, a plan to strengthen the study time schedule for pupils is given emphasis in order to maintain or even improve the academic performance of the pupils.

Keywords — Study Time, Test Scores, Academic Performance, Elementary Pupils

I. Introduction

The focal point of the educational system is around the scholastic achievements of the students. The allocation of time dedicated by students to studying their academic subjects is a crucial variable that necessitates careful consideration in the pursuit of achieving high academic standards.

The potential relationship between the reported study time of students and their academic success has been a subject of investigation by E. Ashby Plant, *et al.* from the Department of Psychology at Florida State University in the United States. It may be perceived that an increase in the amount of time allocated to studying by students would correspondingly lead to an improvement in their academic performance. While it is advisable for students to enhance their personal knowledge and abilities through increased engagement in appropriate study activities, the correlation between study time and academic accomplishment among students remains uncertain.

The concept of study time pertains to a designated period that a student allocates for the purpose of acquiring knowledge through personal study. The consistency of studying at a fixed time each day, the absence of auditory distractions such as the radio or television during private

reading, and the utilization of supplemental materials in personal studies do not significantly impact the learning outcomes. The duration dedicated to studying encompasses certain extraneous activities that have an impact on the internal mechanisms of the learning process (Rothkopf, *1982*). Grave's *(2010)* provides empirical evidence suggesting that the distribution of time resources has a notable influence on educational outcomes. This effect remains significant even when accounting for many factors such as individual ability, motivation, study characteristics, and university attended. In relation to the various categories of time allocation examined in this study, it appears that the allocation of time towards academic coursework has a favorable impact on educational attainment, particularly for female students and those with high levels of ability. However, according to The Web's Largest Resource for Definitions & Translations, the term "test score" is defined as a data point, typically represented as a numerical value, which indicates the level of achievement demonstrated by an individual taking an examination. One commonly accepted definition is that it refers to "a concise representation of the evidence derived from an examinee's answers to the test items that pertain to the construct being assessed. "Test scores are commonly evaluated using either a norm-referenced or criterion-referenced approach, and sometimes a combination of both methods is employed. A norm-referenced interpretation refers to the process of assigning significance to a score by considering the examinee's relative position among a group of other takers. A criterion-referenced refers to the use of a score to provide information about an examinee's performance in a particular subject matter, without considering the scores of other takers.

Deped Order No. 8, s. 2015, commonly referred to as "the Policy Guidelines for Classroom Assessment for the K-12 Basic Education Program," defines the concept of summative assessment. This type of assessment is designed to evaluate whether students have achieved the prescribed content and performance standards by the conclusion of a specific learning period. The determination of the summative assessment is based on the test results obtained by the learner in the written examination. Within the context of educational institutions, both students and professors place utmost importance on academic achievement. Multiple studies have demonstrated that various elements, including motivation and the amount of time dedicated to studying, have had an influence on students' academic performance (Cote & Levine, 2000; Singth, Granville & Dika, 2002). Minnesota (2007) asserts that the academic performance of graduate students is a crucial determinant of higher education performance. Academic performance, as delineated by the Oxford Dictionary, pertains to the evaluation of students' accomplishments in diverse academic disciplines. The elementary grade serves as a fundamental indicator of learning, with high grades typically associated with the acquisition of knowledge and skills, while low grades are indicative of subpar academic achievement. Nevertheless, it has been discovered that numerous factors have a role in determining academic performance. It is imperative to consider multiple factors collectively rather than relying on a single element in isolation when attempting to forecast academic scores. Numerous factors, including but not limited to gender, IQ, study habits, study time, age, year of study, level of parental educational attainment, socioeconomic position, number of children, and birth order, have exerted an influence. Indeed, a wide range of environmental,

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personal, and natural factors have a significant impact on academic success.A study conducted in Malaysia has shown the correlation between time allocation among Malaysian youngsters and their academic performance. (Siew Foen Ng *et al.*). A separate study was done at the University of Uyo, located in Nigeria, with the aim of examining the relationship between study time behavior and academic accomplishment among students pursuing a degree in Social Studies Education. The objective of this study was to assess the disparity in academic performance between students who engage in prolonged study time behavior and those who engage in shorter study time behavior in the field of Social Studies Education. It provides a forum for practicalising the theoretical knowledge gained in the classroom and for demonstrating the psychomotor skills of the teacher and learner who performed the experimentation (Luza-Tabiolo, C. D.,2018). A study with a similar focus was undertaken by Sarath A. *et al.*from Arkansas State University in Arkansas, USA. The study was named "Performance of College Students: Impact of Study Time and Study Habits." During the current period of modernization, school pupils are often characterized as millennials who have been raised in an environment saturated with digital technology. However, the experience of introducing different ICTs in the classroom and other educational settings all over the world over the past several decades suggests that the full realization of the potential educational benefits of ICT (Josol, et. al., 2023). In the contemporary day, students are seen to allocate insufficient time to the pursuit of academic knowledge due to the pervasive impact of social media, a consequence of the dynamic and ever-evolving nature of our society. This study was done with the purpose of examining the impact of study time on the academic achievement of the respondents, as well as to provide a foundation for implementing measures to enhance the overall quality of education.

Literature Review

This Time management, as defined by Gerald *(2002)* and quoted by Sayari et al. *(2017)*, is the practice of planning one's activities and allocating one's resources so as to maximize efficiency and output at work. It's also thought of as an umbrella term for a collection of ideas about how people and institutions might cooperate to attain and enhance people's quality of life.

In addition, Nashrullah and Khan's (2015) research found that students' time management factors, such as planning (both short- and long-term), and students' attitudes toward time, were independently related to their academic achievement.

Time management was a topic covered by both aforementioned experts. Time management skills are not only critical in the context of the workplace, but also of schooling and education more generally. As a result, this research will also assess the role that effective time management plays in student achievement.

Study time is a useful tool for predicting and controlling learning outcomes, as explained by the Palm Beach study time learning theory, as quoted by Ukpong, et al. (2014). It lays the groundwork for understanding how students' study habits affect their academic progress.

Academic success, according to the theorist, is directly proportional to the amount of time dedicated to studying. According to the notion, today's pupils also devote less time to learning than their predecessors did.

Academic performance and achievement in K-12, higher education, and postsecondary settings have been the subject of several studies. Student effort, previous or prior educational performance, self-motivation, the socioeconomic status of the students' parents, the students' age, the number of hours studied per day, admission points, different entry qualifications, tuition trends, and the students' area of residence (rural or urban) are all factors that have been reported to have affected the academic performance of students in these various settings (Farooq, Chaudry, Shafiq & Berhanu, 2011; Al).

As this study is concerned with the academic performance of students admitted with varying entry certificates, admission points and the varying entry qualifications, which are the results of prior or previous academic performance likely to affect the students' future academic performance, have been considered. To determine which students will be admitted to their colleges of education, polytechnic schools, and universities, tertiary institutions worldwide, including those in Nigeria, employ a system of admission points or a variety of entry qualifications/certificates. Even though different examination boards may provide these admission points or entry certificates, they are all equal ranking or significance. The most significant indicator or influencer of students' future academic achievement is, as Bratti and Staffolani (2002) found, the measuring of students' prior educational results or performance. The extent to which a pupil has internalized what has been taught is sometimes gauged by looking at how well they perform academically. It's when pupils show they can use what they've learned in different contexts. The student demonstrates to the instructor that he or she has understood the content by performing well on tests and completing the assigned work. The student's overall performance in all his or her classes is reflected in his or her grade point average, which indicates how well the student grasped the information.

Palm Beach Community College (2013) suggests that students schedule at least three hours of study time outside of class each day. They also stressed the importance of a dedicated study space with lots of desk space. They assumed that a student's study time would go more smoothly if they took a few minutes at the outset to become organized. Xavier University undergraduates (2015) investigated the relationship between first-year students' study habits and their academic success. Students' grades were shown to be significantly correlated with the amount of time they spent studying. Ansari (2014) discovered that students' study habits and study attitudes are two of the most important factors in determining their academic success. Reading and understanding are two aspects of studying. Time management, note-taking, avoiding distractions, and making studying a higher priority are all areas in which students could benefit greatly from developing better study habits and skills. Pogue, Frank, 2015.

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with lots of desk space. They assumed that a student's study time would go more smoothly if they took a few minutes at the outset to become organized. Xavier University undergraduates (2015) investigated the relationship between first-year students' study habits and their academic success. Students' grades were shown to be significantly correlated with the amount of time they spent studying.

Based on the examination of relevant research and literature, it has been observed that students who effectively utilize their time during instructional sessions demonstrate a higher likelihood of achieving academic success. However, the researchers did not provide a clear indication of the most effective time of day to engage in studying in order to achieve optimal productivity. Previous studies have indicated that there may exist a correlation between the optimal timing for studying and the successful management and allocation of study time.

II. Methodology

This study employed a descriptive-correlational approach to investigate, characterize, and examine the association between study time, test scores, and academic performance among elementary school students in the District of Rizal, Zamboanga del Norte.

The descriptive method was utilized to determine the mean values of study time, test scores, and academic performance. The researchers employed the correlational method to ascertain the presence of a statistically significant association between the amount of time spent studying by students and their corresponding test scores. Additionally, it was employed to ascertain the correlation between the amount of time devoted to studying by students and their academic achievements.

Respondents of the study

The respondents of the study were the pupils of selected elementary schools in Rizal District particularly; Rizal Central School with 63 respondents, 21 from Mapang Elementary School(ES) I , 17 from Mapang ES- II , Damasing ES with 18 , Nangca ES with 28, Sebaca ESwith 12 , and Sipaon Elementary School with 10 respondents.

Sampling technique

In determining the total number of respondents, the researcher used the Slovin's formula. The researcher then used stratified random sampling in selecting the pupils in the research study. She also employed the method of proportional allocation in determining the number of pupils from each school to participate in the study.

Research Instrument

The researcher used self-modified questionnaire- checklist as the main instrument in determining the pupils' amount of study time during lunch break and in the evening. The test scores obtained by the pupils from their tests in English, Math, and Science was used, while the academic performance was determined by their grades in the second quarter in the three subjects.

Data Gathering Procedure

The researcher made a letter of request that was sent to the school principals of the elementary schools of Rizal District. Upon its approval, the researcher then asked the permission from the teachers-in-charge to conduct the study and asked their cooperation in gathering the data. An appointment followed for the actual distribution of the questionnaires. On the scheduled day, the researcher approached the respondents individually and administered the distribution of the questionnaires. The researcher retrieved the questionnaire right after the respondents had answered them and ensured that no item was missed out. The researcher also asked the teachers in English, Math and Science to provide to her the scores in the written works and grades of the pupils in the second quarter.

Statistical Treatment Of Data

The following statistical methods were used by the researcher in order to present the data meaningfully:

Frequency and Percentage Distribution- This was used to classify the pupils in terms of sex.

Arithmetic Mean -This was used to determine the average amount of time spent by the pupils in studying, average test score and academic performance.

Mann-Whitney U Test -Used to test the difference in the study time of the pupils when grouped according to sex. Spearman Rank-Order Correlation -This was used to determine the relationship between the study time of the pupils and their test scores. It was also used to determine the relationship between the study time of the pupils and their academic performance. The value of the correlation coefficient rho (ρ) was used to measure the strength of association of the variables.

The guide for interpreting the correlation coefficient ρ as suggested by Cohen, West, and Aiken (2014) were as follows:

VALUE	SIZE	INTERPRETATION
±0.50 to ±1.00	Large	High positive/negative correlation
±0.30 to ±0.39	Medium	Moderate positive/negative correlation
±0.10 to ±0.29	Small	Low positive/negative correlation
±0.01 to ±0.09	Negligible	Slight positive/negative correlation
±0.00		No correlation

The collected data for this study were encoded and analyzed using the following soft wares:

Statistical Package for Social Sciences (SPSS v. 19.0)   PSPP 0.7   Microsoft Excel

The researcher and her statistician deemed that posting the statistical formulas was not necessary. All statistical test for this study were performed at 0.05 level of significance.

SCORING AND PROCEDURE

The following time continuum was used to interpret the amount of study time of the pupils

DURING LUNCH TIME			DURING EVENING		
SCALE	TIME	INTERPRETATION	SCALE	TIME	INTERPRETATION
			5	121 minutes or over	Very High
4	31 minutes or over	High	4	91 – 120 minutes	High
3	21 – 30 minutes	Average	3	61 – 90 minutes	Average
2	11 – 20 minutes	Fair	2	31-60 minutes	Fair
1	10 minutes or less	Poor	1	30 minutes or less	Poor

The following was used to interpret the score of the pupils in English, Math, and Science as well as the statistical continuum.

SCORE RANGE	STATISTICAL CONTINUUM	DESCRIPTION
41 – 50	90.00 – 100.00	Outstanding
31 – 40	85.00 – 89.99	Very Satisfactory
21 – 30	80.00 – 84.99	Satisfactory
11 – 20	75.00 – 79.99	Fairly Satisfactory
10 or below	Below 75	Did not meet expectations

III. Results and Discussion

This section presents the data gathered in tabular form, which were then analyzed and interpreted.

TABLE 1
THE PROFILE OF GRADE SIX PUPILS IN TERMS OF SEX

SEX	Frequency	Percentage	Cumulative Percentage
Female	92	54.4	54.4
Male	77	45.6	45.6
TOTAL	100	100.0	

Table 1 presents the profile of Grade Six pupils in terms of sex. The table shows the profile, frequency, percentage, and cumulative percentage of which most of the pupils are females with 54.4 % compared to males with only 45.6%.

TABLE 2
THE AMOUNT OF STUDY TIME OF THE PUPILS DURING LUNCH BREAK

Time (Minutes)	FREQUENCY	IMPLICATION
31 or over	64	High
21 – 30	47	Average
11 – 20	22	Fair
10 or below	36	Poor
TOTAL	169	-
Mean	26.56	Average
Standard Deviation	10.774	-

10 or below Poor   11 – 20 Fair   21 – 30 Average   31 or over High

Table 2 presents the amount of study time of the pupils during lunch break. The table shows the time in minutes, frequency, mean, standard deviation, and implication.

Sixty-four (64) pupils spent 31 minutes or over to study during lunch break which implies high amount, forty-seven (47) pupils spent 21 – 30 minutes signifying an average amount, twenty two (22) pupils spent 11 – 20 minutes which implies fair amount, and thirty six (36) pupils spent 10 minutes or less which implies poor amount.

The mean time 26.56 minutes implies that the pupils spent time studying during lunch break at an average amount. Most of the pupils spent high amount of time to study during lunch break. However, most of the time during lunch break, some pupils would like to spend a fair or poor amount of time to study as they have attended to some other activities. Study time during lunch break at school depends on the attitude of the pupils. This is consistent with the statement of Adeyemo (2005) as he specifically opined that study time attitude is an exercise that goes beyond merely reading for pleasure.

TABLE 3
THE AMOUNT OF STUDY TIME OF THE PUPILS IN THE EVENING

Time (Minutes)	FREQUENCY	IMPLICATION
121 or over	0	Very High
91 – 120	1	High
61 – 90	26	Average
31 – 60	61	Fair
30 or below	81	Poor
TOTAL	169	-
MEAN	41.21	Effective
SD	18.728	-

30 or less Poor   31 – 60   Fair   61 – 90   Average   91 – 120   High   121 or more   Very High

Table 3 presents the study time of the pupils in the evening. The table shows the time in minutes, frequency, mean, and comprehension level. No pupil spent time to study more than 120 minutes in the evening which implies very high amount, one (1) pupil spent time to study between 91 – 120 minutes in the evening which implies high amount, twenty six (26) pupils spent time to study between 61 – 90 minutes in the evening which implies average amount, sixty one (61) pupils spent time to study between 31 – 60 minutes in the evening which implies fair amount, and eighty one (81) pupils spent time to study 30 minutes or less to study in the evening which implies poor amount. The mean time 41.21 minutes implies that the amount of time spent by the pupils to study in the evening is fair. Majority of the pupils spent only poor to fair amount of time to study in the evening. Most of the pupils study time in the evening were affected by some activities such as doing household chores and watching television programs. This is supported by Rothkopf (1982) as he stated that study time also includes some external activities that affects the internal process of learning. Ukpong & George added that physiological and physiological factors include anxiety, stress from outside engagement like chores, parental involvement in homework, hunger, lack of care and affection which could have transferred effects on students' learning.

TABLE 4
THE DIFFERENCE IN THE IN THE STUDY TIME OF THE PUPILS WHEN GROUPED ACCORDING TO PROFILE

SEX				
Time of Day	**U-Value**	**P-Value**	**Interpretation**	**Decision on H_o**
Lunch Break	3447.000	0.760	Not Significant	Do not reject
Evening	2216.500	0.000	Significant	Reject

Table 6 presents the difference in the study time of the pupils when grouped according to profile. The table shows the collaboration, U-value, P-value, Interpretation, and Decision on H_o.

The computed U-value 3447.000 for *lunch break* produced P-value that is greater than 0.05 level of significance. It means that there was no significant difference in the study time of the pupils during lunch break when grouped according to profile. This implies that male and female pupils have similar preference in the amount of time spent to study during lunch break. However, the computed U-value 2216.500 for *evening* produced P-value that is greater than 0.05 level of

significance. It means that there was a significant difference in the study time of the pupils in the evening when grouped according to profile. This implies that male and female pupils do not have similar preference in the amount of time spent to study in the evening. The preference of the pupils in the amount of time spent studying in the evening differ as female pupils spent time to study in the evening than male pupils. The pupils' attitude to study and study habits explained these differences as opined by Adeyemo (2005).

This corroborated to the study of Fayombo (2010) that showed significant differences in students' study habits of secondary school male and female students. In addition, Mahinay (2017) found in her study more male students that their female counterparts don't study daily.

TABLE 5
TEST SCORES IN THREE SUBJECT AREAS

TEST SCORE OF THE PUPILS IN ENGLISH			TEST SCORE OF THE PUPILS IN MATH			TEST SCORE OF THE PUPILS IN SCIENCE		
SCORE	FREQUENCY	IMPLICATION	SCORE	FREQ.	IMPLICATION	SCORE	FREQ.	IMPLICATION
41 – 50	60	Very High	41 – 50	43	Very High	41 – 50	65	Very High
31 – 40	68	High	31 – 40	64	High	31 – 40	61	High
21 – 30	45	Average	21 – 30	48	Average	21 – 30	40	Average
11 – 20	6	Low	11 – 20	14	Low	11 – 20	3	Low
10 or below	0	Very Low	10 or below	0	Very Low	10 or below	0	Very Low
TOTAL	169	-	TOTAL	169	-	TOTAL	169	
MEAN	35.21	High	MEAN	33.52	High	MEAN	36.80	High
SD	7.960	-	SD	8.237		SD	7.640	

Table 5 presents the test score of the pupils in English. The table shows the score, frequency, mean, standard deviation, and implication. Forty three (43) pupils scored between 41 – 50 which is very high, sixty four (64) pupils scored between 31 – 40 which is high, forty eight (48) pupils scored between 21 – 30 which is average, fourteen (14) pupils scored between 11 – 20 which is low, and no pupils scored very low.

The mean score 33.52 implies that the test scores of the pupils in English is high. Most of the pupils who scored high or very high in English took longer time to study. This is consistent with the statement of Salami (2008) that when students are proficient in how to study effectively, how to take notes at lectures, how to prepare for and take examinations, it is very likely that they will perform well in their academic work

Whereas, the test score of the pupils in Math found out that sixty (60) pupils scored between 41 – 50 which is very high, sixty eight (68) achieved between 31 – 40 which is high, forty five (45) pupils scored between 21 – 30 which is average, six (6) pupils scored between 11 – 20 which is low, and no pupils scored very low.

The mean score 35.21 implies that the test scores of the pupils in Math is also high. Pupils who utilized their time to study after lunch and in the evening somehow helped them improved their performance in mathematics. Their good study habits to utilize their time to study were

translated into higher score in math. This was supported by Odiri (2015) that there was significant relationship between students' study habits and mathematics achievement.

For Science subject, Sixty five (65) pupils scored between 41 – 50 which is very high, sixty one (61) pupils scored between 31 – 40 which is high, forty (40) pupils scored between 21 – 30 which is average, three (3) pupils scored between 11 – 20 which is low, and no pupils scored very low. The mean score 36.80 implies that the test scores of the pupils in Science is again high. Majority of the pupils who scored high or very high in Science utilized more time to study. This corroborated to the findings of Ukpong & George (2013) that long study time behavior of students improves their academic performance.

TABLE 6
THE RELATIONSHIP BETWEEN THE STUDY TIME OF THE PUPILS DURING LUNCH BREAK AND THEIR TEST SCORES

Variables	Computed rho (ρ)	P-Value	Interpretation
English and Study Time	0.345	0.000	Medium/Moderate Positive Correlation/ Significant
Math and Study Time	0.381	0.000	Medium/Moderate Positive Correlation/ Significant
Science and Study Time	0.313	0.000	Medium/Moderate Positive Correlation/ Significant

Table 8 presents the relationship between the study time of the pupils during lunch break and their test scores. The table shows the variables, computed rho ρ, P-value, and interpretation.

The computed rho ρ values produced P-values that are less than 0.05 level of significance. This means that there was a significant relationship between the amount of study time of the pupils during lunch break and their test scores. It implies that the pupils' study time during lunch break has an influence on their test scores.

There was enough evidence to reject the null hypothesis. That is, there was a significant relationship between the amount of study time during lunch break and test scores. The pupils' test scores increases as they spend more time to study during lunch break.

The above result was supported by the studies of Cote & Levine (2000) and Singth, Granville & Dika (2002) which have shown that factors such as motivation and study time have impacted on student's achievement. In addition, Gbore (2006) argued that study habit have strong relationship with academic performance of students.

TABLE 7
THE RELATIONSHIP BETWEEN THE STUDY TIME OF THE PUPILS IN THE EVENING AND THEIR TEST SCORES

Variables	Computed rho (ρ)	P-Value	Interpretation		
English and Study Time	0.729	0.000	Large/High Significant	Positive	Correlation/
Math and Study Time	0.740	0.000	Large/High Significant	Positive	Correlation/
Science and Study Time	0.703	0.000	Large/High Significant	Positive	Correlation/

Table 9 presents the relationship between the study time of the pupils in the evening and their test scores. The table shows the variables, computed rho ρ, P-value, and interpretation.

The computed rho ρ values produced P-values that are less than 0.05 level of significance. This means that there was a significant relationship between the amount of study time of the pupils in the evening and their test scores. It implies that the pupils' study time in the evening has an influence on their test scores.

There was enough evidence to reject the null hypothesis. That is, there was a significant relationship between the amount of study time in the evening and test scores. The pupils' test scores increases more as they spend more time to study in the evening. This findings supported the studies of Owolabi (1996) and Adeyemo (2005) as they concluded that students academic achievement was the outcome of a combination of the study time behavior and other factors in any course of study.

The studies of Ogunmakin (2001) and Gbore (2006) strengthen this relation as their study revealed that study time attitude affects strong relationship with academic performance of students.

TABLE 8
THE ACADEMIC PERFORMANCE OF THE PUPILS

GRADE	FREQUENCY (IN ENGLISH)	FREQUENCY (IN MATH)	FREQUENCY (IN SCIENCE)	IMPLICATION
90 – 100	38	41	49	Outstanding
85 – 89	46	56	53	Very Satisfactory
80 – 84	67	55	58	Satisfactory
75 – 79	18	17	9	Fairly Satisfactory
74 or Below	0	0	49	Did not meet expectations
TOTAL	169	169	169	
MEAN	85.22	85.72	86.31	
SD	4.212	-4.397	4.322	

Table 10 presents the academic performance of the pupils in 3 subject areas; English, Math & Science.

Thirty eight (38) pupils received a grade between 90 – 100 which implies an outstanding performance, forty six (46) received a grade between 85 – 89 which implies very satisfactory, sixty seven (67) pupils received a grade between 80 – 84 which implies a satisfactory, eighteen (18) pupils received a grade between 75 – 79 which implies a fairly satisfactory performance, and no pupil received a grade 74 or below.

The mean grade 85.22 implies that the pupils' academic performance in English as measured by their grade is very satisfactory. Many pupils who performed better in English spent more time to study during lunch break and in the evening. Their performance in English has been made better due to their willingness to study during lunch break and in the evening.

This agrees with the statement of Salami (2002) as she stressed that when students are proficient in how to study effectively, how to take notes at lectures, how to prepare for and take examinations, it is very likely that they will perform well in their academic work.

Whereas for Math, Forty one (41) pupils received a grade between 90 – 100 which implies an outstanding performance, fifty six (56) pupils received a grade between 85 – 89 which implies a very satisfactory performance, fifty five (55) pupils received a grade between 80 – 84 which implies a satisfactory performance, seventeen (17) pupils received a grade between 75 – 79 which implies a fairly satisfactory performance, and no pupil received a grade 74 or below.

The mean grade 85.72 implies that the pupils' academic performance in Math that is determined by their grade is very satisfactory. Many pupils who performed better in Math also spent more time studying during lunch break and in the evening. Also, their performance in Math has been made better due to their willingness to study during lunch break and in the evening.

The above result conformed to the findings of Singth, Granville & Dika (2002) as it revealed that factors such as motivation and study time influence the students' achievement in math and science.

Whereas, Science subject revealed that forty nine (49) pupils received a grade between 90 – 100 which implies an outstanding performance, fifty three (53) have grades between 85 – 89 implying a very satisfactory performance, fifty eight (58) pupils with 80 – 84 which implies a satisfactory performance, nine (9) pupils with 75 – 79 which implies a fairly satisfactory performance, and no pupil received a grade 74 or below.

The mean grade 86.31 implies that the pupils' academic performance in Science as determined by their grade is very satisfactory. Pupils who performed better in Science also spent more time to study during lunch break and in the evening. The above result agrees to the findings

of the study of Singth, Granville & Dika (2002) as it have shown that factors such as motivation and study time have impacted on student's achievement in math and science.

TABLE 9
THE RELATIONSHIP BETWEEN THE STUDY TIME OF THE PUPILS DURING LUNCH BREAK AND THEIR ACADEMIC PERFORMANCE

Variables	Computed rho (ρ)	P-Value	Interpretation	
English and Study Time	0.394	0.000	Medium/Moderate Correlation/ Significant	Positive
Math and Study Time	0.348	0.000	Medium/Moderate Correlation/ Significant	Positive
Science and Study Time	0.385	0.000	Medium/Moderate Correlation/ Significant	Positive

Table 9 presents the relationship between the study time during lunch break and pupil's academic performance.

The computed rho ρ values produced P-values that are less than 0.05 level of significance. This means that there was a significant relationship between the amount of study time of the pupils during lunch break and their academic performance. It implies that the pupils' study time during lunch break has an influence on their academic performance.

There was enough evidence to reject the null hypothesis. That is, there was a significant relationship between the amount of study time during lunch break and their academic performance. The pupils' academic performance improved as they spent more time studying during lunch break. The above result was supported by Gbore (2006) as he argued that study habits have a strong relationship with academic performance of students. Moreover, studies of Cote & Levine (2000) and Singth, Granville & Dika (2002) have shown that factors such as motivation and study time have impacted on student's achievement

TABLE 10
THE RELATIONSHIP BETWEEN THE STUDY TIME OF THE PUPILS IN THE EVENING AND THEIR ACADEMIC PERFORMANCE

Variables	Computed rho (ρ)	P-Value	Interpretation	
English and Study Time	0.783	0.000	Large/High Correlation/ Significant	Positive
Math and Study Time	0.769	0.000	Large/High Correlation/ Significant	Positive
Science and Study Time	0.772	0.000	Large/High Correlation/ Significant	Positive

Table 14 presents the relationship between the study time of the pupils in the evening and their academic performance. The table shows the variables, computed rho ρ, P-value, and interpretation.

The computed rho ρ values produced P-values that are less than 0.05 level of significance. This means that there was a significant relationship between the amount of study time of the pupils in the evening and their academic performance. It implies that the pupils' study time in the evening has an influence on their academic performance.

There was enough evidence to reject the null hypothesis. That is, there was a significant relationship between the amount of study time in the evening and academic performance. The pupils' test academic performance improve more as they spend more time studying in the evening.

The above result corroborated with the studies of Ogunmakin (2001) and Gbore (2006) that study time attitude affects strong relationship with academic performance of students while Adeyemo (2005) concluded that students' academic achievement was the outcome of a combination of the study time behavior and other factors in any course of study.

IV. Conclusion

The researcher derived the following conclusions by utilizing the findings as the foundation. In general, the duration of students' study time during their lunch break and in the evening is moderate, and it has a discernible impact on their test scores and overall academic performance. The duration of study undertaken during the lunch break exhibits a modest impact on test scores and academic performance, whereas the duration of study conducted in the evening demonstrates a significant influence on test scores and academic performance. Students have the potential to enhance their academic performance by allocating additional time for studying during the evening hours.

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