

**STUDY CULTURE AS A FACTOR FOR SENIOR SECONDARY SCHOOL STUDENTS ACCOMPLISHMENT IN ENGLISH AND MATHEMATICS IN KANO MUNICIPAL COUNCIL**

**Sadi Sirajo PhD<sup>1</sup>, Alhassan abubakar musa PhD<sup>2</sup> & Bilyaminu Usman PhD<sup>3</sup>**

<sup>1</sup>Federal University of Education Kano Mathematics Department

<sup>2</sup>General Studies Department Azman University Kano

**Abstract**

*The study examined the influence of study culture on senior secondary school students' accomplishment in English language and Mathematics. Concentration and reading comprehension were specifically focused. A sample of 384 public senior secondary school students from a population of 46,000 participated in the study, using multistage sampling technique. The self-assessment study inventory (SASI) developed by Katelyn (2016), cited in Yakubu (2021) was adopted to elicit respondents information on reading and concentration. Students' scores in English and Mathematics in 2021/2022 second term academic session were obtained from the subject teachers. The content and construct validity of the instrument was determined by experts in the faculty of education, Bayero University Kano. Crunch's Alpha method was used to determine the reliability coefficient. Data collected were analyzed using descriptive statistics correlation coefficient. Findings showed that reading comprehension and concentration as reading culture had no statistical significant mean difference as factor of academic accomplishment in English and mathematics of senior secondary school students in Kano Municipal Council. The study recommended among others that school management should make it a point of duty to always give parents feedback on students' performance in English and mathematics as such information will assists in identifying the area of improvement required in their education.*

**Keywords:** Study Culture, Reading, Concentration, Comprehension, Accomplishment.

**Introduction**

Academic accomplishment describes academic outcomes that indicate the extent to which a students have achieved their learning goals. It may refers to completing educational benchmarks such as Bachelor's degree. Academic accomplishment is often measured through examination or continuous assessments (Kolo, 2016). In any educational settings, performance emerges through academic accomplishment which is attributed to students reading culture and they in turn are formed and strengthened through education. The development of good study culture is equally relative and assist not only in academic performance but should be visible in career achievement.

Morakinyo (2013) cited in Yakubu (2023) argued that accomplishment in academic is the extent to which a student, teacher or institution has achieved their short or long term educational objectives. Thus, academic accomplishment is commonly measured through terminal examination, assignments, group work, excursion or tests. However, study culture entails many

variables, namely; preparing study time table, concentration, time management, searching or using relevant study materials, listening to lessons, note taking etc (Blunner, 2013).

Concentration according to Kimba (2021) is described as action or power of focusing all one's attention on something. It simply means the ability to work and think carefully about something you are doing. Phrases such as complete attention, intense mental effort etc best described concentration. Therefore, unrelated thoughts, ideas, feelings and sensations are excluded from ideal concentration.

Reading comprehension is the key to successful academic accomplishments. It is the ability to process written text, understand its meaning, and integrate with what the reader already knows (Alhassan, 2017). It is also the ability to read text, process it and understand or comprehend its meaning. It relies on two interconnected abilities: word reading (being able to describe the symbols on the page) and reading of comprehension (being able to understand the meaning of the words and sentences). It is therefore, the most vital skills in students' dream of excellent performance, hence it is the understanding of what one reads through a combination of decoding and language fluency (Amos, 2022).

Good readers are both purposefully and active and have the skills to absorb what they read, analyze it, make sense of it, and make it their own. This is the reasons why this researchers align with Umoh P. A's (2015) definition cited in Alhassan(2017) "as a reasoning process for thinking what requires the action of perceiving word in story, passage and reacting to what is read finally bringing together of ideas newly gained with the past experiences.

Following the trend of this definition, the following reading skills are identified, namely: ability to reorganize and pronounce words, acquisition of vocabulary skills, recognition of the relationship among words, reading between the lines and recognition at the authors' intervention and structural design (Alhassan, 2017).

Poor academic accomplishment means a students who has scored in the 50<sup>th</sup> percentile or below on a school distinction administered, standardized test or received a score on a state assessment that does not meet standards in one or more fundamental learning areas. Sokan (2013) performing poorly is usually noticed in English and Mathematics which are compulsory in secondary schools, irrespective of the course of study (science, arts or commercial). According to Johnson (2022) who conducted a study on accomplishment of students in kano municipal council in May/June WASSCE examination of 2018-2022, Ajingi, Karaye, Kibiya, Kiru and Kumbotso consistently had low percentage (below average percentage) representation of candidates. It was reported that Ajingi 13<sup>th</sup> with mean percentage of 47.11%, karaye 14<sup>th</sup> with mean percentage of 46.99%, kibiya 17<sup>th</sup> with mean percentage of 44.48%, kumbotso 20<sup>th</sup> with mean percentage of 38.74%, kunchi 21<sup>st</sup> with mean percentage of 38.28%, kura 25<sup>th</sup> with mean percentage of 32.55% and madobi 29<sup>th</sup> with mean percentage of 26.72% (Aminu, 2023).

Teaching of effective study culture in Nigerian secondary schools is very pertinent because Students' that are armed with better study culture are likely to perform in examination than an intellectual students with poor study culture (Butter, 2010). It was found in his study that there exists significant relationship between effective study culture and students' academic performance.in a similar development, Okpa (2015), in a study identified a significant relationship between the type of materials used by students, environment and planning of study within their academic performance. However, it was reported that no significant relationship

existed between assimilation of contents of study of students' gender and level of study respondent with academic performance.

### **Statement of the problem**

Bad or poor study culture has been attributed to many factors such as lack of proper teaching techniques, parents' lethargy, peer influence etc and it has been a major concern to government, researchers, parents, school administrators and even curriculum developers. Thus, the result has led to mass failure, examination misconducts, frustration, truancy etc. Many parents and teachers keep complaining of issue of non-articulation of study culture among secondary school students. Teachers of English language and mathematics are not left out of the complaints as they keep recording poor performance of students in English and mathematics examination which are core subjects to be passed at credit level by gaining admission to study in any higher institutions of learning in Nigeria.

(WAEC 2018, 2019 and NECO 2020 and 2021). It is this ugly and unfortunate situation that made those researchers dwell into findings and gather data on the accomplishment of students in English and mathematics through their study culture in Kano municipal council, Nigeria.

### **Research hypothesis**

The following null hypothesis were formulated and tested at 0.05 level of significance

1. There is no significant relationship between concentration and students accomplishment scores in English and Mathematics
2. There is no significant relationship between reading comprehension and students accomplishment in English and mathematics
3. Study culture has no significant contribution to academic accomplishment of public senior secondary school students in English and Mathematics in Kano Municipal council.

### **Methodology**

The design of the study is descriptive survey research design. The population of this study consist of 46,000 senior secondary school students in the five Local Governments in Kano municipal council (ministry of education, 2019). A sample size of 384 (192 males and 192 females), senior secondary two (SS2) students using Krejcie and Morgan (1970) table for determine sample size from a given population was used for the study. To distribute the figures fairly, Jorgen (2005) stratified proportionate formula was adopted. The stratified random sampling was adopted in the third stage to select Nine (9) secondary schools, three from each of the sampled local government. In the final stage, the researcher used purposive sampling technique. Thus, in the selection of final respondents, simple random sampling technique was adopted by use of ballot papers. The first instrument used was an adopted questionnaire titled "self-assessment study inventory (SASI)" by Kolo (2016). The questionnaire has two section, A and B. section A consisted items which elicit respondents bio-data. Section B elicits 22 items from the respondents' information on concentration, study habit, reading comprehension and study habit respectively. A profoma was used to collect students' scores in mathematics and English language unthe first term continuous assessment (CA) and examination in SS2 (2018/2019) academic session.

For validation of the instrument, copies of the instrument (SASI) was subject to scrutiny by experts in measurement and evaluation, mathematics education as well as guidance and

counseling’s in the faculty of education, Bayero university kano. The logical validity index is 0.80. to determine the reliability of the instrument, a pilot-testing was carried out using 60 respondents from two secondary schools in Jigawa state, of similar characteristics.

The data collected from the respondents was analyzed using Cronbach’s Alpha. The index of the reliability coefficient obtained was 0.73. The researcher adopted descriptive statistics of mean and standard deviations to answer the research questions. The acceptable cut-off point was 2.50 (4+3+2+1=10/4=2.50). Any score from 2.50 and above was considered accepted, while any score below 2.50 was rejected. Mean rating and standard deviation were used to answer the research question 1-2. While Pearson product moment correlation coefficient statistics was applied for the tests of hypotheses 1-2, and regression for test of hypotheses 3 and 0.05 level of significance. Analyses were done using statistical Package for Social Science (SPSS) version 22.

**Results**

Data are presented in tables’ 1-7 from mean rating and standard deviation for research questions and hypothesis.

**Table 1:** demographic characteristics of respondents

<b>Variable</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>		
Male	185	50
Female	185	50
<b>Total</b>	<b>370</b>	<b>100</b>
<b>Local government</b>		
Ajingi	128	34.6
Karaye	122	33.0
Kibiya	120	32.4
<b>Total</b>	<b>370</b>	<b>100.0</b>

Table 1 is the demographic characteristics of respondents.it shows that out of 370 respondents, 185 (50%) were males and 185 (50%) were female. It also shows that Ajingi has 128(34.6%), Karaye 122(33.0%) and Kibiya 120(32.4%).

**Hypotheses 1:** There is no significant relationship between concentration and students achievement scores in English and mathematics.

**Table 2:** Relationship between concentration and students achievement scores in English and mathematics

<b>Variables</b>	<b>N</b>	<b>English</b>			<b>Mathematics</b>		
		<b>R</b>	<b>R<sup>2</sup></b>	<b>Sig.</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>Sig.</b>
<b>Concentration</b>	370	.060	.004	.249	.184	.0034	.000

a = 0.05, R2= coefficient of determination

From table 2, the R for English is 0.060, P> value .249. In the same vein, the R for Mathematics is .184 and P < value is .000. in English, P 0.05, but in mathematics, P 0.05, therefore, there is



English and that other factors not included in this study could contribute 99.91% in students. The study further investigated the contribution of each study habit inventory and the results are presented in table

**Table 5:** standardize coefficient for study habits and English

Model	Standardize coefficient Beta	T	Sig.	Tolerance	VIF
1 (Constant)	.098	8.319	.000		
Concentration	-.020	-.020	.780	.622	1.917
Reading comp.	-.10	-.010	-.199	.983	1.018

An inspection of tolerance and variance inflation factor (VIF) results have shown that the assumption of multicollinearity was not violated. The result in the table 8 shows that concentrate (B= .020, P = 780 and reading made no unique comprehension significant individual contribution to academic achievement in English language. Whilst the contribution of reading comprehension (B = 0.036,P= 0.529)did not individually contribute significantly to academic accomplishment in English language.

**Table 6:** composite of study culture as factor on students’ academic accomplishment in mathematics

R = .219                      standard error = 8.710

R square = .048

Adjusted R square = .038

Source of variation	SS	DF	MS	F	P
Regression	1399.957	4	349.989		
Residual	27692.967	365	75.871	4.613	.001
<b>Total</b>	<b>29092.943</b>	<b>369</b>			

a= 0.05

Result on table 6 shows that a coefficient of determination (Adjusted R<sup>2</sup>) = .038, which gives proportion of variance (adjusted R<sup>2</sup> x 100) = 3.8. this implies that the independent variables accounted for 3.8% of variance in the dependent variable. The joint predictor of study culture has no significantly significant prediction students’ academic accomplishment in mathematics (F = 4.613; Df = (4,365); P= .001).

**Table 7:** standardization coefficient for study habits and mathematics

Model	Standardize coefficient Beta	T	Sig.	Tolerance	VIF
1 (Constant)	.	7.310	.000		
Concentration	.144	2.037	.042	.522	1.917
Comp					
Reading	.031	.609	.543	.983	1.018

a= predictor (constant) concentration, reading comprehension

b= dependent variable = academic achievement

An inspection of tolerance and variance inflation factor (VIF) in table 7 results have shown that the assumption of multicollinearity was not violated. The result in table 10 shows that concentration (B = 1.44, P = .042 made unique and significant individual contribution to academic accomplishment in mathematics. Whilst the contribution of reading comprehension

( $B=0.031$ ,  $P=0.543$ ) did not individually contribute significantly to academic accomplishment in English language.

### **Discussion of findings**

Findings from hypothesis one showed that concentration has no significant relationship between students' concentration and English language accomplishment. There was a statistically significant relationship between concentration and students' academic performance in mathematics. This confirms earlier findings of which Osuo-sisekeu and uche (2020) reported that students in kano municipal council recorded low in WASSCE examination (may/june) academic accomplishment in English and mathematics from 2018-2022. For instance Karaye, Kibiya and Kumbotso consistently has low percentage (below average percentage) representation of candidate. In ranking the academic accomplishment of students in the mathematics and English language in May/June WASSCE from 2018-2022. This implies that as students feels the mathematics is a hard subject, so they concentrate on it in their preparation for examination so as to score at credit level.

Findings of hypothesis two indicates that there was no significant relationship between reading comprehension and English and mathematics performance of students in kano municipal council. This findings contradicts findings of Okpa (2015), adegbenga and adunlami (2017) and awobajo (as cited in adegbenga, Odunlami, 2017) who in their separate studies reported that students with better study culture are likely to perform better in examination than highly intellectual students with poor study culture, that a significant positive relationship exist between effective study culture and students' academic performance, as well as found a significant difference in the academic performance of students who used good study culture and those who used poor study culture, and a significant relationship between study materials used by students, environment and planning of study with their academic performance. This implies due to the influence of the mass media, students show little or no interest in reading, (books, journal, and magazines) not to talk of concentration in their studies. The cankerworm of examination misconduct may be traceable to lack of concentration while studying.

Findings of hypothesis three indicates that neither concentration nor reading comprehension made unique/joint contribution to predicted academic accomplishment of senior secondary school students in English language and mathematics in kano municipal council. This finding also contradicts the findings of katelyn (2013) who in his study found that good study culture and factors of students' academic performance. This scenario may be that today, secondary school students prefer to watch movies and other show on the television, listening to audio CDS, Whatsapp, twitter, Facebook among others. Thais takes away most of their effective study habits or culture as concentration and reading which may have predicted their academic performance. One of the many issues confronting students is not their ability to study but their lack of interest in English language and mathematics which are the core subject required at credit level of admission into institution of higher learning.

### **Conclusion**

The study has established that there is no significant relationship between concentration and students' performance in English language. However, it established that there is a significant positive relationship between concentration and students' accomplishment in mathematics and students performance. It has also revealed that there is no significant relationship between comprehension and students' performance in English language and mathematics. The results also indicate that concentration and reading comprehension as study culture are not significant

factors of academic achievement of public senior secondary school students in English language and mathematics in Kano municipal council.

### **Recommendations**

Based on the conclusion of this study, the following are recommended:

1. Teachers, counselor and school administration should strive to assist students with good study culture and skills.
2. The techniques of concentrating examination questions should be taught and instilled in the students. This can be done through regular and functional school counseling unit, staffed with professionally qualified counselors.
3. Rudiment of study culture as counselling intervention packages should be designed and be taught since a relationship has been established between study culture and students' academic accomplishment.
4. Enlightenment campaign for parents' involvement in their children study culture and skills should be intensified. This can be done through parent teacher association (PTA) meetings.

### **References**

- Aminu, J. A (2023) relationship between study habit and secondary school students' academic performance in eti-ose local government area of Lagos state, Nigeria. Nigeria academic forum.
- Alhassan, (2017). Practical English for Colleges and Universities. Tunlad Publishers, Kano.
- Amos, A.O (2022). Multi casual evaluation of academic performance of Nigerian learners; issues and implication for national development. An unpublished thesis.
- Blunner, S.T & Richard, R. (2013). College adults are not good at self-regulation: a study on the relationship of self-regulation, concentration and reading comprehension. *Journal of educational psychology*. 95(5). 335-346.
- Butter, D. & castellan- willington, V. (2010). Textbook study reading. In R. Flippo & D. Coverly (Eds), handbook of college reading and study strategy research (105-148) Mahwah, NJ;Erlbaum.
- Johnson B.O (2022). Academic performance of college students; influence time spent studying and working. *Heldref publication*, 7(5), 151-159.
- Katelyn D. (2021). A study on study habit and academic performance among adolescents' years. *International journal of social science tomorrow*, 1(5), 1-5.
- Kimba FD (2021) self-assessment study inventory (SASI). Raspa Vicko Consultancy services publication.
- Krejcie R. and Morgan, T. (1970). Determination sample size for research activities. *Educational and psychological measurement*, 3(5), 607-610.
- Makayinye, CT (2013). Study habits and academic achievement of undergraduate students in Aizawl city. *105R. Journal of humanities and social science (10SRJHSS)*, 23(7), 9, 1-5.

- Marakinyo, M. (2013). Effect of note-taking format and study technique on recall and relationship performance. *Contemporary educational psychology*, 20(2), 172-187.
- Okpa, SE (2015). Assessment of the relationship between study habits and academic performance of university students in department of nursing science south east, Nigeria. MSc Dissertation university of Nigeria, Enugu campus.
- Sokan, AA. (2013). State based analysis of candidate “WASSCE participation and achievement of two credits and above including English language and mathematics, *international journal of advanced academic research (science, technology and engineering)* 6(6),42-53.
- Umoh JB. & Emmanuel, AE (2018). Study habits and students achievement in mathematics in ikono local government area, Akwa Ibom State. *European centre for research training and development* 7(1), 20-53.
- West African examination council (2018). Annual report (May/June). Lagos; federal ministry of education.