



PSYCHO-SOCIOLOGICAL FACTORS AS CORRELATES OF ACADEMIC ACHIEVEMENT OF NIGERIAN STUDENTS; A CASE STUDY OF STUDENTS OF EMMANUEL ALAYANDE COLLEGE OF EDUCATION, ERELU, OYO, NIGERIA

AWOYEMI, E. A.

*Department of Guidance and Counselling
University of Ibadan*

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LASISI, A.K.

*Department of Guidance and Counselling
University of Ibadan*

ABSTRACT

The study investigated the relationship between psychosocial factors (self-concept, study habit, motivation, home and school environment and socio-economic status) and academic achievement of students of Emmanuel Alayande College of Education, Oyo. Multi-stage random sampling technique was used in this study. The participants consisted of 250 randomly selected students from five schools of the college, different departments in each group and levels in each department. They are made up of 146 male and 104 female students with mean age of 20.52 years (SD = 14.36). The instrument used was Lasisi' (2004) Academic Achievement Prediction Inventory ($r = 0.78$) and Achievement test on Classroom Control and Management ($r = 0.65$) and Citizenship Education ($r = 0.69$) for parts two and three respectively. Two research questions were asked and answered. The data generated were subjected to Multiple Regression Analysis. The results showed that the independent variables (psychosocial factors) made significant joint contribution to the prediction of dependent variable (academic achievement) ($F_{(5, 244)} = 150.58, P < 0.05$). It was also observed that each of the independent variables made a significant relative contribution to the prediction of the dependent variable. It was recommended that government at various levels should step up finance on education so that the institutions in the country will be better equipped to face their challenges and this will bring about improvement in the quality and quantity of learning. The recommendation also touched the factors that are resident in the school authorities, teachers, parents and the students themselves.

INTRODUCTION

It is an understatement to aver that a country's economic, social political, and man-power development are a reflection of the quality of the education received by her citizenry. Available statistics shows that performance in public examination in Nigeria has over the years being a source of worry not only to Nigerian government, but to other stake holders in the system as the result has assumed a geometrical rate of depression. It has been reported that majority of the candidate scores are less than five credit passes at a seat. The effects of these low scores therefore accounted for the reason why majority of secondary school leavers are unable to secure admission into the tertiary institutions without adopting injudicious means. The antecedent's effects of this inability to secure admission therefore may be considered in terms of behavioural problems such as crime, delinquency, and other negative and anti-social behaviors (Lasisi, 2004).

Excellent academic performance of students is often the expectation of parents. Unfortunately, such parental expectation are hardly matched with routine checks on their wards to ascertain the school progress in terms of the benefits the student is making in school instruction (Osiki, 2001). The inability of the students to make reality the aspirations of their parents are anchored on academic mal-achievement.

The end product of any academic investment is the success recorded by the individual upon whom the investment is directly made. This success is contagious and transmitted to other significant others in the life of such an individual. In the contrary, failure or modestly put, poor academic performance could be disheartening and psychologically traumatizing. The twin contrasting phenomena associated with academic investments have thus become the concern of all (Aremu, Oluwole and Fayombo, 2001).

From the foregoing, it is unequivocally apparent that the problem of poor academic achievement is, as it were, a reality in the Nigerian educational system. When a problem refuses to end, the solution can not be exhausted. This represents one among many other



studies needed to unravel the mystery of academic mal-achievement. The purpose of the study was to investigate the composites and relative effects of psychosocial factors on the academic achievement of Nigerian students.

Literature Review

There is course to believe that students study habits exert great influence on the academic achievement of students. Stinebrickner and Stinebrickner (2003) estimated the relationship between a student's first semester grade performance and his/her average daily study hours. In another work at the higher education level, Stinebrickner and Stinebrickner (2003) took advantage of the institutional details of a mandatory labor program at Berea College to establish that working during school can have a quantitatively large and statistically significant negative causal impact on academic performance.

Family and home environment is another psycho-social factor of the study. Walker (2002) assessed the role of the family on academic achievement between African and Caucasian college students. The study reported small but significant influence of family on academic achievement of the students. Another study investigated the role of parents among other independent variables on academic achievement of Asian and Caucasian youth. The results showed that there was significant relationship between parenting roles and academic achievement of their children (Schvaneveldt, 2002). This trend of result is also supported by Green and Njagi (2000) that reported a study conducted by the Houston Center which corroborate the assumption that family involvement plays a key role in the academic success of children.

Academic self-concept is also an important predictor of academic achievement. Academic self-concept and academic achievement are strong predictors of each other. Gottlieb and Rogers (2002) reported a study conducted using students enrolled in a selected admissions programme, in which there are a limited number of student positions available. The study assessed academic self-concept using the Dimensions of Self-Concept upon entry into the programme. This study was performed to explore whether academic self-concept scores could predict successful completion of an academic programme and the impact of self-concept scores on academic achievement and professional leadership. The results of the study indicated a weak but yet positive correlation between GPA, academic self-concept and the leadership and initiative dimension of the DOSC-H. Bouler (2002) investigated whether self-concept predicts college freshman academic adjustment and achievement. This was done by measuring self-perception of twelve self-concepts domains (including academic domain) and five social support domains. Self-perception of intellectual ability and instructors supports were positive predictors.

Motivation is another psychosocial factor of the study to be considered in this paper in relation to academic achievement. Some researches demonstrate that using extrinsic motivators to engage students in learning can both lower achievement and negatively affect student motivation (Dev, 1997; Lumsden, 1994). Students who are motivated to complete a task only to avoid consequences or to earn a certain grade rarely exert more than the minimum effort necessary to meet their goal. And, when students are focused on comparing themselves with their classmates, rather than on mastering skills at their own rate, they are more easily discouraged and their intrinsic motivation to learn may actually decrease. Brooks et al. (1998) observed that while external rewards sustain productivity, they "decrease interest in the task, thereby diminishing the likelihood that the task will be continued in the future" (p. 26). Students who are intrinsically motivated, on the other hand, come out ahead in a number of areas. Intrinsically motivated students earn higher grades and perform academically well in achievement test scores, on average, than extrinsically-motivated students (Dev, 1997; Skinner & Belmont, 1991): intrinsically motivated learners are better personally adjusted to school (Skinner & Belmont, 1991): employ "strategies that demand more effort and that enable them to process information more deeply" (Lumsden, 1994, p. 2): are more likely to feel confident about their ability to learn new material (Dev, 1997): use



"more logical information-gathering and decision-making strategies" than do extrinsically-motivated students (Lumsden, 1994, p. 2): are more likely to engage in "tasks that are moderately challenging, whereas extrinsically oriented students gravitate toward tasks that are low in degree of difficulty" (Lumsden, 1994, p. 2): are more likely to persist with and complete assigned tasks (Dev, 1997): retain information and concepts longer, and are less likely to need remedial courses and review (Dev, 1997) and are more likely to be lifelong learners, continuing to educate themselves outside the formal school setting long after external motivators such as grades and diplomas are removed (Kohn, 1993).

Socioeconomic status is also a great determinant of academic achievement. Since Coleman's (1966) landmark study on *Equality of Educational Opportunity*, socioeconomic status has been seen as a strong predictor of student achievement. Coleman asserted that the influence of student background was greater than anything that goes on within schools. Payne and Biddle (1999) commented in their study of data obtained from the Second International Mathematics Study (SIMS) that Nigeria managed to be ranked above Swaziland out of the 23 nations involved in the study. Findings from Binkley and Williams' (1996) study of the International Association for the Evaluation of Educational Achievement (IEA) Reading Literacy Study supported a somewhat similar comparison between poverty and reading literacy. The low-poverty fourth-grade group in the United States fared better than any group in the 32 other countries. The high-poverty group scored much lower than the low-poverty group, but never fell below the international average. Chall (1996) analyzed a combination of National Assessment of Educational Progress (NAEP) reading results, Scholastic Aptitude Test scores over time, and a synthesis of research on beginning reading from 1910 to 1996. She concluded that there are large differences between higher- and lower-socioeconomic status children. The differences were smaller among younger children and increased in the higher grades.

Using the 1996 NAEP data for state-level mathematics achievement and for state-level poverty and *Education Week's* 1997 edition of *Quality Counts* for state-level funding of education, Biddle (1997) concluded that the child poverty/achievement correlation was $r = .700$ ($p < .001$) and that, together, school funding and child poverty predict 55% of the variance of state differences in mathematics achievement. Darling-Hammond (1999) also used NAEP data from two years of fourth-grade mathematics results, two years of eighth-grade mathematics results, and two years of fourth-grade reading results. She also concluded that poverty was significantly and negatively correlated with student outcomes at the state level. In a district level study of urban schools belonging to the Council of Great City Schools (2001), the results of the Stanford Achievement Test indicated that the greater the concentration of poverty in the school districts, the lower the student achievement. Of the three grades—4th, 8th, and 10th—selected to report poverty data, achievement gaps between districts of high and moderate concentrations of poverty were generally greatest in fourth grade in both reading and mathematics. Caldas (1999) compiled the results of all Louisiana 10th graders in 1990 who took the Louisiana Graduation Exit Examination to correlate both district- and school-level effects of poverty on achievement. Socio-economic status accounted for 45.5% of the variation between districts and 41% of the variation among schools within districts.

Studies also reported the joint influence of psychosocial factors on academic achievement of students. Mclean (1997) studied some selected attitudinal factors related to students' success in high school. The sample of this study consisted of 69 high achieving and 55 low achieving high school students in North western Alberta. The findings revealed high achievers were observed to possess high motivation for schooling, academic self concept; reference based academic self concept and instructional mastery. Locus of control was observed to be the strongest discriminators among the variables. Verna, Campbell and Beasley (1997) investigated the influence of psychosocial factors on the academic achievement of gifted high school students. The psychosocial factors studied include home environment, self-concept, prior ability, study habit and socio-economic status on



Mathematics achievement, Science achievement, and Scholastic Aptitude Test Quantitative and Verbal Scores. The result showed that all the factors exert significant effects on academic achievement of the respondents.

From the foregoing, the influence of psychosocial factors on the academic achievement of students has been looked at from various perspectives. This study intends to replicate this study using Nigerian participants because of the fact that the reported studies were conducted in foreign countries. Thus, the objectives of this study were to establish the joint contribution of the psycho-social factors on the prediction of academic achievement of college students; and also the relative contributions of each of the psycho-social factors to the prediction of academic achievement of college students.

Research Questions

The following research questions were put forward to guide the study.

- What is the composite contribution of the psychosocial factors to the prediction of academic achievement?
- What are the relative contributions of each of the psychosocial factors to the prediction of academic achievement?

METHODOLOGY

Research Design

Correlational research design was adopted for this study. The design was adopted because the intention of the study was to unravel the relationship between five psycho-social factors and academic achievement.

Sampling Technique and Sample

Multi-stage simple random sampling technique was used in this study. The first stage involved dividing the whole college into five schools. The second stage involved randomly selecting three departments from each school. The third involved collecting information from parts two and three students. 10 respondents were selected from each of the two levels of each of the three departments selected from each school. Thus, 20 students were selected from each of the 15 selected departments. Out of the 300 students selected for the study, 250 responses were found useful for the study. The participants for the study consisted of 250 systematically selected students from the five schools of the college. This consists of 146 males and 104 female students. The mean age and the standard deviation of ages of the participant are respectively 20.52 years and 14.36.

Instrumentation

Two major instruments were used to collect data for this study. The first and second respectively are psychological instrument and achievement tests. Academic Achievement Prediction Inventory (AAPI) (Lasisi, 2004) was the psychological instrument used for data collection in this study. The instrument was divided into two major parts. The first part deals with the necessary instruction for responding to the instrument. The part also consist the space for bio-demographic information with age, gender, religion and family background as variables. The second part of the instrument consists of five sections. The sections include Academic self-concept, Study Habit, Motivation, Home and school environment as well as Socio-economic Status. Each section consists of ten items constructed in five likert format with response options ranging from very much like me, like me, not like me and not at all like me. The minimum and maximum obtainable from each section are 10 and forty in that order. Lasisi (2004) reported reliability coefficient of 0.78 for stability of response and 0.76 for internal consistency and homogeneity of the instrument respectively. In the course of this study, the reliability of the instrument was re-established and the scale returned 0.81 test-retest reliability coefficient.



Achievement Test

Three achievement tests were used for the study. The achievement test on Class Control and Management for part II and Citizenship Education for part III students. The split- half method of reliability was used to determine the stability of response of the achievement tests. It returned 0.65 and 0.69 for the three tests respectively.

Procedure

The information was collected on three visitations to the college. The first visitation afforded the researchers to request for permission and discuss the research with the authority of the schools and the departments. In the second visitation, the researchers systematically select the respondents of the study. The third visitation was when the administration of the AAPI was done. The fourth visitation was when the Achievement tests were administered.

Method of Statistical Analysis

The statistical procedure employed for analyzing the data generated from the study is Multiple Regression Analysis. It enabled the researchers to estimate the joint contribution of the five psycho-social factors (independent variables) to the prediction of academic achievement (dependent variable). It also afforded the researchers to determine the relative contribution of each of the independent variables to the prediction of the dependent variable.

RESULTS

Research Question I

What is the joint contribution of the five psycho-social factors (academic self-concept, study habit, motivation, home and school environment and socio-economic status) to the prediction of academic achievement?

Table I: Summary of Joint Contribution of Psycho-social Factors to Academic Achievement Using Regression Analysis

Multiple R = 0.869
Multiple R Square = 0.755
Adjusted Multiple R Square = 0.750
Standard Error of Estimate = 7.7187

Analysis of Variance

Sources of Variance	Sum of Square	DF	MS	F	P
Regression	44699.11	5	8939.82		
Residual	14537.102	244	59.578	15.052	0.05
Total	599236.203				

Table 1 shows the result obtained from processing research question I. The table revealed that the five psychosocial factors (academic self-concept, study habit, motivation, home and school environment and socio-economic status) gave a coefficient of Multiple Regression (R) of 0.869, Multiple R Square R² of 0.755 and adjusted Multiple Regression of 0.750. Going by this, the analysis shows that the psycho-social factors contribute 75% to the prediction of academic achievement of the students. Also, indicated on table I is the analysis of variance for the Multiple Regression data that produced F. ratio of 150.52 and found to be significant at 0.05 critical region.

**Research Question II**

What are the relative effects of psycho-social factors on the prediction of academic achievement of students?

Table II: Summary Table Showing Relative Effects of Psycho-social Factors on Prediction of Academic Achievement of Students Using Standardized Regression Coefficient

Variable Description	Unstandardized coefficients		Standardized Coefficient	t.	P
	B	Std. Error	Beta		
Constant	1.808	6.264		1.98	0.05
Acad Self-concept	0.166	0.129	0.045	2.105	0.05
Study Habit	0.255	0.158	0.61	2.338	0.05
Motivation	0.334	0.141	0.111	2.369	0.05
Home & Sch Environment	1.898	0.114	0.852	4.215	0.05
Socio-Eco Status	0.245	0.128	.078	1.918	.05

Table II shows the result obtained from the data collected from research question II. The result indicates that the regression coefficient (standardized and unstandardized), standard error of estimate, t. ratio and the level at which t. ratio is significant for each independent variable. The result shows that standardized regression coefficient range from 0.045 to 0.852, unstandardized regression coefficient (B) range from 0.166 to 1.898, the standard error of estimate range from 0.114 to 6.264 and t. ratio range from 1.92 to 4.22. The result also shows that all the psycho-social factors respectively make a significant contribution to the prediction of academic achievement.

DISCUSSION AND RECOMMENDATION

The first aspect of the findings reveals that there was significant relationship between psycho-social factors and academic achievement. This is to assert that psycho-social factors when combined made a significant contribution to the prediction of academic achievement of NCE students. This finding supports the previous findings of Mclean (1997), Verna (1997) and Abdulahi (2002) which concluded that psycho-social factors significantly contributed to the prediction of academic achievement. The reason for the finding is not far-fetch. Considering the fact that psycho-social factors consist of variables that contribute both positively and negatively to behaviors of human beings. Many of the factors are significant correlates of human behaviours which do not exclude academic achievement.

The findings also shows that psycho-social factors (academic self-concept, study habit, motivation, home and school environment and socio-economic status) relatively made a significant contribution to the prediction of academic achievement of students. Put differently, each of the factors was significantly related to academic achievement of students of college of education. This finding corroborated the findings of Stinebrickner and Stinebrickner (2004) who reported that significant relationship existed between study habit and academic achievement of students. This finding also supported Walker's (2002) finding which reported that there was significant relationship between home and school environment and academic achievement of students. It also supported Bouler (2002) through observed significant



relationship between academic self-concept and academic achievement. This finding supported Miller and Meece (1997) which found a significant relationship between motivation and academic achievement. The finding of Darling-Hammond (1999) is also supported by this finding courtesy of observed significant relationship between socio-economic status and academic achievement.

Based on the findings of this study, it was recommended that government at all levels should be ready to expend more on education and educational facilities. Sufficient fund should be made available to rehabilitate the dilapidated structures commonly seen in our schools. Undoubtedly, renovating the various structures in our public schools can bring about remarkable improvement in the academic achievement of students. In addition to this, school authorities should also be up and doing especially with the welfare of both teachers and the students. The salaries and other emoluments of the staff should be paid promptly. This can improve the motivation of teachers to achieve their professional responsibility and also make them to be more dedicated their profession. Furthermore, teachers and students should also play their respective roles to the best of their abilities. Readiness to do individual's best can go a long way to facilitate realistic achievement in the school learning and retention. The parents also have a role to play in seeking improvement in the academic achievement of students. They should make home environment very conducive for students. Conduciveness of home environment is no doubt an important determinant of academic achievement and attention given to this by parents can make or mar academic progress of the youngsters. It is not an overstatement to assert that considering some of these recommendations can bring about a huge success in improving the academic achievement of the students.

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