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**Integrated Factors Correlating Undergraduate Academic
Achievement in Bayelsa State, Nigeria**

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Abstract

The consistent poor academic performance of students in public secondary schools can be regarded as a serious social problem because a number of scholars, stakeholders in education, school administrator, and public commentators have concluded that students' academic performance in public secondary schools falls short of the desired standard. Thus, it is study investigated the integrated factors determining academic performance of students in public secondary schools in Bayelsa State, Nigeria. The descriptive survey research design was adopted and purposive sampling technique was used to select Sagbama educational zone with a population of over 2506 students and 800 teachers. 80 teachers and 242 students were randomly selected from eight public secondary

schools to participate in the study. A peer validated questionnaire tagged “Integrated Factors and Students’ Academic Achievement (EFSAP)” $r = .92$ was used for data collection. Four research questions were raised and data collected were analyzed with the use of simple percentage counts. Results revealed that integrated factors had positive impact on students’ academic performance. The following integrated factors were found to have contributed relatively to the academic achievement of students in an order of magnitudes; teachers, societal, economic, government, parental, peer group, and individual students factors. It was recommended that teachers and the civil society at large play their role in contributing positively to the academic performance of students’ in public secondary schools in Bayelsa State, Nigeria.

Background to the Study

Education has great potentials for the transformation of the individuals and the society, and it has become the major yardstick for measuring progress, civilization and development of mankind in any organized society. Most governments hence have an abiding faith in the efficacy of education as an instrument for social reconstruction and economic development (Niles & Harris – Bowlbey, 2003).

In Nigeria, just like in any other developing countries, education is considered to be a way of escape from poverty, illiteracy and under-development. Improved academic performance among students in schools is therefore paramount to students in order to navigate the currents of under-development. Every-one is therefore conscious of the benefits derivable from investment in education (Oghenekohwo, 2008). Thus, failure in academic performance usually brings untold hardship and frustration to the individual concerned. Unfortunately, the quality of secondary education in Nigeria and Bayelsa state is under in particular threat, because students are witnessing an unprecedented mass failure in both internal and external examinations respectively.

In the May/June 2006 WAEC result, only 25% of the total number of students that sat for the examination had five credits and above, indicating that 75% of the total numbers of candidates failed. A general review of the situation reveals that there is a growing gap and the question is, who is to be blamed for this poor academic achievement? It was reported that the causes and cures of poor students’ performance in WAEC examination from 1986 till date are attributed to teachers, inadequate facilities in

schools, students-parental causal influence, government policies and funding of education (Ajila & Olutola, 2002).

Over the years, however, investigations on factors that predict academic achievement have attracted the interest of teachers, counselors and school administrators in Nigeria (Ayodele, 2000), as a result of the public concern for the declining academic achievement among students. In general, the environment in which a student undertakes academic activities is integrated into various factors that bear significant influence on it and such factors cannot be held in isolation from the home, school, and community in which students reside. The environment then provides the resources that aid the academic performance of students (Ayodele, 2000).

In a board classification, Hicks (1989) noted that the integrated factors can be internal and external in its influence on any entity such as the individual student. In this sense, the environment for example is conceived as an upon system which receives and give out resources that have varying impact on the entities that are domicile in it. The inter-relationship between the environment and students with reference to academic performance then provides an indicator on the extent to which students can navigate the challenging impacts of the home, institutional, government, and peer-group among others which form the perceived integrated socio-economic, political and institutional elements that may have profound influence on the students' academic achievement in terms of performance.

The resources of the environment when effectively utilized provides a pathway for any student to design a career development plan upon which the template for success factors in career development can best be measured in terms of academic performance (Niles & Harris- Bowsbey, 2000). It is then obvious that the environment plays important role in the academic performance of students given the various resources which exist in it and from which students can benefit maximally. Therefore, the life context, personal aptitudes and orientation to academic life, the cultural milieu and social context of a students' family setting and community serve as instrumental and moderating integrated factors among others which are perceived to have profound impact on the prediction of academic performance of students.

Statement of the Problem

The cumulative effect of declining students' academic performance in internal and external examinations is always evident in their level of achievement in career pathway. There have been several studies on students' study habit, intelligent-quotient, and method of teaching, teachers' influence and parents' involvement in students' academic achievement. However, these past studies have only focused on isolated factors without a thorough investigation of such integrated factors which the environment explains. This is the gap filled in this study as it surveyed integrated factors predicting students' academic performance in public secondary schools in selected public schools in Bayelsa State, Nigeria.

Objectives of the Study

The general objective of the study was to find out the determinants of students' academic achievement in term of integrated factors. However, the specific objectives include among other things to:

- i. determine the joint and relative impact of intergrated factors on students' academic achievement.
- ii. establish the relationship between integrated factors and students' commitment to academic achievement;
- iii. determine the impact of institutional facilities on students' academic performance;

Research Questions

Based on the above objectives, the following research questions were raised to guide the study.

1. What are the impacts of integrated factors on student's academic achievement?
2. Is there any relationship between integrated factors and student's commitment to academic career development?
3. What is the relationship between societal values and student's academic performance?

Significance of the Study

There have been several studies on students' academic performance. Such studies were either on study habit, intelligent quotient, methods of teaching, teacher's factor, and parents' involvement in students' academic achievement, personality factors or school quality among others. Despite these past studies, student's academic performance has not improved significantly to justify the recommendations of such previous works. Thus, there is a gap between research and practice on this subject matter which of course, this study bridged. The situation thus calls for more research efforts geared towards helping to identify the challenges of students' academic achievement. The significance of this study is a contribution to knowledge in the area of academic improvement among students and career development through appropriate strategies geared at improving quality and standards in public secondary schools.

Findings of the study have the vantage of providing the government, schools authorities, counselors and school social workers with adequate and correct baseline data on the extent to which the variables investigated can positively influence student's academic performance.

Scope of the Study

Although there are several isolated factors that can determine the academic performance of students, this study is delimited to such integrated factors as may moderate or shape the achievement level of students in the academics.

Literature Review

The Learning Environment

While writing on a discourse on "Global Environmental policy Agenda" Oghenekohwo (2008) noted that with the increasing concentration of population in urban places, there is increased pressure on the natural environment and consequently, the quality of the environment invariably deteriorates thereby compromising human expectation of the natural habitat. As an outer physical and biological system in which man and other organisms live (Pascarella, 1984), the environment affect weather, food, housing, learning, habitation, work and all organisms especially in relation to people, animals and other living things. According to past studies, a

clean and protected environment is important for human safety, learning, food, health and sustainable development (Badu, 2000).

The Millennium Development Goals (MDGs) has therefore lay down four interlinked areas for national commitment that are integrated into the overall goal of ensuring sustainable global development for which the environment is critical. Goal 7 of the MDGs is to: “ensure environmental sustainability” that is crucial to learning, working, living in good health and safety. In this study, the concern is on learning, which has direct relationship with the foundation of sustainable development. As Oghenekohwo (2008) advanced, to assure national food security, adequate and affordable health care, manageable family size, high life expectancy among others, the level of literacy must be high and sustainable. However, to attain such level of high literacy rate, the learning environment most enhance academic performance of learners in order to be able to respond favourable to the challenges of sustainable development.

The environment thus relates to the “natural and manmade physical resources,”... whether indigenous or exotic and interaction between them and ecosystems, habitats, spatial surroundings or other constituent parts whether natural or modified or constructed by people and communities among others (Environmental Management Act of Zimbabwe, 2002). The environment can then be said to constitute both biophysical (natural) and human (socio-economic and political) dimensions. The human dimension which is of most paramount in this study relates to elements such as people, social, cultural, political and economic aspects. All these, one way or the other have influence on the learners which ultimately determine the outcome of learning as measured in academic achievement or performance (Uwakwe, 1991).

The learning environment is therefore seen in the human dimension as relating to certain variants that constitute as institute, parental, societal value, teacher’s factors, peer group and commitment of the learner. It is therefore evident that all these factors may have direct correlation with the level of academic achievement by the learner (Badu, 2000; Ajila & Olatole, 2002).

Students’ Academic Achievement/Performance

Achievement in academic implies an individual learner’s performance after a specified course of instruction. Uwakwe, (1991) noted that achievement

depicts the status of the learner in a specified content area or specified course of instruction after the individual has undergone tutoring in a programme.

Related factors influencing academic achievement provide exposition on student's adjustment to the learning situation and such factors that directly relate to the performance of the student as integrated into the individual factor such as aptitude and ability variable (Webb, 1986) establishment of a strong relationship between study skills and the ability to process information deeply which Edwards and Wales (1981) found as achievement motivation as moderated by the relationship between academics ability and Grade point Average GPA, with high motivation students obtaining stronger ability GPA and showing more persistence in their academic efforts.

Most important in this study is student's campus environment. Janosik, Creamer and Cross (1988) found that higher levels of self-reported sense of competence were associated with students living environments that provided emotional support, minimal competition, and a high degree of involvement in self-governance. Pascarella (1984) established the effects of the academic and social press of the institution on educational aspiration and perhaps, the academic achievement of the student.

Meanwhile, the family socio-economic status have direct bearing with the academic achievement of the students in college. Although some authors (Barney, Fredericks, Fredericks and Robinson, 1995, Webb, 1986) found that success in the first two years of college was unrelated to social class, other researchers had however found a positive relationship between socio-economic status variables and measures of academic achievement and adjustment (Carpenter & Western, 1984). Alwin and Thronton (1984) also established that socio-economic status variables were related positively to academic achievement.

The school's academic environment, which is determined by several variables, can affect students' academic achievement and preferences. It was reported that person-environment fit theories or college fit theory suggests that the greater the congruence (agreement) between the students values, goals and attitudes and those of the college, the greater the likelihood that the student will remain in the college on the basic of higher academic achievement (Taylor & Whetstone, 1983).

Thus, most of the research studies that examined students' academic adjustment employ outcome criteria selected from the academic performance domain. Two most common outcome criteria in this category are:

- academic grades and
- graduation rate or progress toward degree or certificate.

The use of course grades as a measure of academic adjustment and success is not surprising, because typically one consider successful student to be those who perform well academically. Presumably, students who excel in terms grade point average are those who will be the most qualified for quality jobs and additional graduate or professional education.

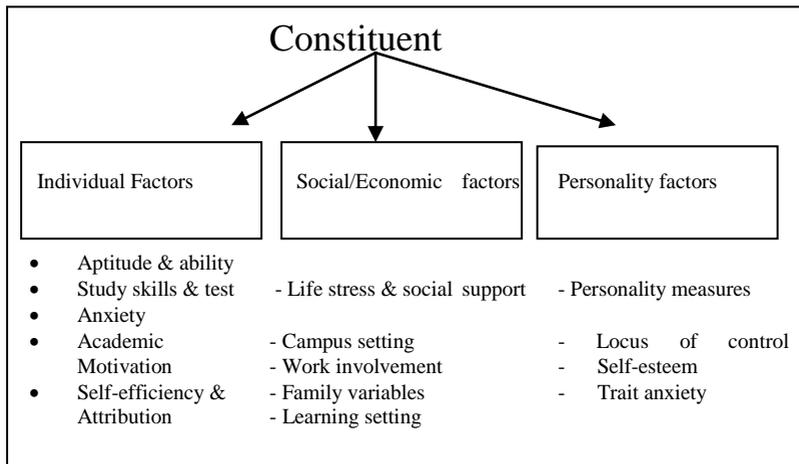
Environment and Students' Academic Achievement

Academic environment variables are often considered as the school-fit-theory which have relation with the students' values, goals attitudes and those of the college. This environment tends to be specific and not global as it is restricted to the school setting. However, the global environment implies the constituents of the school itself, the teacher factors, the home factors, peer group influence and the configuration of the social-economic status of parents relative to the academic achievement of the students. Several researches have noted that social and environment factors (family, campus environment, peers) appear to play an important role in a student's academic adjustment and success. Thus, the family peer, school setting life stress and social support, life on campus, among others are very crucial mitigating factors in student's academic achievement (Carpenter & Western, 1995)..

The adjustment framework, school size, and teachers' quality in the view of Ayodele (2000) relate to the level of internal efficiency attained which of course, cannot be separated from the academic achievement of the learners in the collage setting. Thus, the integration of all these factor serve as foundation for the determination of learners academic achievement and career development.

The figure 1 below shows a schema on the predictive factors of students' academic adjustment and success in the learning setting.

Figure 1: Factors Predictive of Academic Adjustment and Performance



Source: Russel & Petrie (1992) in Badu (2000)

The factors which predict students academic performance or achievement are then conceived as environmentally inclined. As reported by Russel and Petrie (1992) in Badu, (2000) issues such as self-efficiency, study skills, social support and family interactions represent variables that influence academic adjustment and are subject to change through the counseling process. On the other hand, factors such as high school academic performance, socio-economic status, and personality traits are much less amenable to change, even though they may be related to academic performance.

Methodology

The descriptive survey research design was adopted for the study. This was to enable the research identify, observe and critically analyse the phenomenon under investigation in order to draw up plausible inference.

The population comprised 800 teachers and 2506 students in 7 public secondary schools in the Sagbama education zone of Bayelsa State. Using the proportional and stratify random sampling technique; 10% of the population from each stratum was selected for the study. Thus, 80 teachers and 250 students participated in the study.

A self structure questionnaire titled: “Integrated Factors in students Academic Achievement” (IFSAA) was used for data collection. This instrument was peer reviewed by experts in adult learning psychology to ensure the five critical validity factors of content, face, construct, concurrent and predictive. The questionnaire was then pre-tested through test re-test among 50 respondents from Yenagoa educational zone of the state. A reliability co-efficient of .92 was obtained after the tests were correlated using spearman Brown reliability test method. Data were personally collected by the researcher after administration of the instrument. In all, 56 copies of the questionnaire were retrieve from teachers while 244 copies were collected from the students as properly filled-in for data analysis. Data were analysed using both descriptive and inferential statistics respectively.

Results and Discussion

The demographic data analysed showed that 95.2% of students who participated in the study were less than 20 years while most of the teachers were of the average age of 31-40years, accounting for 67.9%. Also, all student where in the senior secondary class with JSS certificates as highest educational qualification while 67.9% of the teachers had first Degree certificates. The sex distribution of the respondents showed that, there were more male students (72.6%) relative to female. On the other hand, female accounted for 62.6% among the teachers as against 37.4% for male teachers.

Results of Research Questions

Research Question 1: *What are the impacts of integrated factors on students’ academic achievement?*

Table 1: Distribution on the Impacts of Environmental Factors on Students Academic Achievement

Impacts of Integrated factors	Yes f (%)	No f (%)
• Adaptation to college setting	144(80.8)	158 (19.2)
• Concentration on learning	206 (68.2)	96 (31.8)
• Students’ motivation	262 (86.8)	40 (13.2)
• Commitment to academic work	236 (78.2)	66 (21.8)
• Development of skillful learning habits	58 (19.2)	244 (80.8)
	216 (71.5)	86 (28.5)

• Interactive among peer	229 (75.8)	73 (24.2)
• Development of self-efficiency	252 (83.4)	50 (16.6)
• Adjustment to academic success		

$X = 13.60$; $SD = 6.02$

The result shows $\pi = 13.60$ and $5D = 6.02$. Besides, except for one item which indicated negative impact, there were seven items showing positive impacts of integrated factors on the academic performance of students. In a ranked order of percentage, it is evident that students’ motivation (86.8%), adjustment to academic success (83.4), adaptation to college setting (80.8), and commitment to academic work accounted most significant as the impact of the integrated factors on students’ academic achievement. Other impacts are the development of self-efficiency by the student (75.8), interaction among peers and concentration on learning (71.5%). This result further validates the submission of Ajila et al (2002), (Niles & Harris-Bowlsbey (2000) who had earlier reported positive correlations between integrated factors and college students’ academic adjustment and success.

Research Question 2: *Is there any relationship between integrated factors and students’ commitment to Academic career development?*

Table 2 Pearson Correlation on the Relationship between Integrated Factors and Student’s commitment to Academic Career Development

Relationship Variance	Environmental Factors	Students Commitment to Academic Career Development
Environmental Pearson Correlation Factors sig. (2 – tailed).	1.00	.175
N	302	302
Student’s commitment to Development Pearson correlation sig. (2- tailed)	.75***	1.000
Academic career Development	.000	-
N	302	302

$\Upsilon = .175$; $p < 0.5$

Correlation is significant at 0.01 level.

The Pearson correlation test in table 2 above shows that, at 0.01 level of significance; a correlation value of .175 was attained as significant. Thus, the integrated factors correlated significantly with student’s commitment to

academic career development ($r = .175$; $p < 0.01$). Consequently, it becomes obvious that all the integrated factors such as institutional (School), teachers, peer group, societal values, public policies and the community where schools are located had significant relationship with the extent of students commitment to academic career development and performance.

The result supports the submission of Carpenter et al (1982) on aspirations for higher education. Meanwhile, the survey has established that institutional factors such as class size, conducive classroom setting, school library, availability and utilization of teaching or instructional materials are very essential for the academic achievement of students. Besides, family factors such as income level of parents, parental discipline, large family household, were classified as related to the academic achievement of students. Also related to these factors are the teachers factor in terms of qualification, adequacy, punctuality and commitment to teaching the requisite curriculum as specified by the Federal Republic of Nigeria (2004) document.

All these factors coupled with the leadership style of administration in school, guidance and counseling constitute significant constituents of academic achievement among students.

Research Question 3: *What is the relationship between societal values and students' academic performance?*

Table 3 Pearson Correlation between Societal values and Students Academic Performance

Relationship Variance		Societal Value	Students Academic Performance
Societal Value Correlation	Pearson	1.00	.142**
	sig. (2-tailed)	-	.000
	N	302	302
Student's Academic Performance	Pearson	.142**	1.000
	sig. (2-tailed)	.000	-
	N	302	302

$r = .142$; $p < 0.05$

*** Significant relationship at 0.01 level

The table 3 above shows that significant relationship existed between societal values and students academic performance ($r = .142$; $p < 0.01$)

Societal values which are classified as positive in child's discipline, hard work, commitment to education and achievement, honesty among students provide basic foundation for good academic performance. As noted in the survey, good community/school relations, development of career plan, dedication and honesty in academic work also influence improved academic performance by student.

However, when greed, corruption and materialism is pursued in the society, it encourages laziness, indolence, and failure which are detrimental to academic performance by students. From the above, it is evident that there is direct bearing between societal values and student academic performance.

Conclusion and Recommendations

Various factors integrated in operation shape human life. In the psychology of Learning it is observed that no single factor isolatedly predict learning outcome among learners. It therefore, becomes inevitable to conclude that, rather than mitigate isolatedly such environmental factors in terms of students academic achievement, a collective approach should be geared at establishing the holistic constitutes of such factors in reference to attainment of students academic achievement. This study therefore subsists in that integrated factors had more influencing impact on the academic achievement of learners.

Recommendations

The following recommendations become very pertinent to this study:

- Global influence through information communication technology (ICT) is gradually altering the shape of students academic interest, commitment and achievement. So, globalization of knowledge through education across frontiers should be allowed to go through the stages of cultural diffusion. This will help to moderate the overarching influence of ICT and global variants in relations to learning.
- The community and parents should be much more involved in shaping the concomitant effects of environmental influence on academic achievement of children; and

- The attainment and sustenance of the MDGs is a function of learning and application of learning achievement to human development. So, public investment on education and training of manpower should not end at funding alone, but focus should be placed on attitude, aptitude, motivation, monitoring, quality assurance and feedback (evaluation) mechanism in the learning process. This is essential in order that track inputs and output variances in academic learning and achievement among students.

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Appendix
Integrated Factors and Student Academic Achievement Scale
(IFSAAS)

Part A

Demographic Data

Please tick against the box provided below with respect to the personal data request/ write out details where applicable

- | | | |
|------|--------------------|--------|
| Sex: | Male | () |
| | Female | () |
| Age: | Less than 20 years | () |
| | 21 – 30 | () |
| | 31 – 40 | () |
| | 41 – 50 | () |
| | 51 years above | () |

Highest Education Qualification:

Respondent' Status:

Teacher:

Name of School/Location.....

.....

Number of years of teaching Experience:

Part ‘B’

Respondent to the following question items by ticking () against option consideration very appropriate to the question items raised using the two tailed response Yes/No.

S/N	Details	Yes	No
1.	Students’ academic performance cannot be isolated from the environmental influence around them.		
2.	The environmental factors that have direct or indirect impact on students academic achievement include: <ul style="list-style-type: none"> • School • Teachers • Students peer group • Society • Government • Community 		
3.	Effective discipline in school enhances students’ concentration on studies.		
4.	Availability of teaching aid or instructional materials motivates students to achieve academic success.		
5.	The leadership style of school principal determine students overall academic achievement in a school.		
6.	Adequate teacher and their effective utilization in relevant or core subject is a factor in student’s academic performance.		
7.	A well stocked school library is essential for students.		
8.	A conducive classroom setting encourages students concentration in academic work.		
9.	Adequate class size of ratio 40:1 promotes effective teaching in any school setting for academic performance.		
10.	Effective school community relations promote academic performance among students.		
11.	Moderate family size relative to income level of family facilitates the finance of students education foe better academic performance.		
12.	It is often difficult for students from large family household to do well academically.		
13.	Students from educated parents are likely to perform better academically than those from parents of illiterate background		
14.	The income level of parents determines their commitment to academic performance of their wards.		
15.	Parents discipline is vital to children academic achievement.		
16.	Effective school inspection is essential for the academic performance of students.		

17.	Inaccessibility to many schools by inspectors compromises effective supervision of school academic work.		
18.	Poor incentives and inadequate staff motivation by government limits academic achievement of students.		
19.	Most teachers don't come to school and this affect the teaching of curriculum to students.		
20.	Teachers have no offices to stay and this discourages them from putting in their best in school work.		
21.	Most teachers are not qualified while the few qualified ones are carrying excess work load which do not enhance student performance.		
22.	Truancy among students affects their academic performance.		
23.	Most students do not have faith in educational attainment and so, are not interested in academic performance.		
24.	Absence of guidance and counseling limits the academic achievement of students.		
25.	Societal value on education is very poor and this is affecting students' academic performance.		
26.	Poor school community relation as a result of poor PTA structure affects students' academic performance.		
27.	Corruption and greed to acquire wealth without hard work is limiting student's commitment to academic achievement.		
28.	Most schools do not have career development plan for their students which lead to low academic achievement.		