

## Locus of Control, Interest in Schooling and Self-Efficacy as Predictors of Academic Achievement among Junior Secondary School Students in Osun State, Nigeria

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### Abstract

**Background:** Academic achievement is interestingly an important issue; a fundamental premium upon which all teaching-learning activities are measured using some criteria of excellence e.g. good academic performance, poor academic performance and academic failure.

**Aims:** This study examines locus of control, interest in schooling and self-efficacy as predictors of academic achievement of Junior Secondary School Students.

**Sample:** The sample of the study consisted of 500 students comprising 300 boys and 200 girls. These were selected from twenty-five secondary schools through stratified random techniques. The stratification factor used was the class of the students.

**Method:** An ex-post-facto research design is adopted. Three independent variables (Locus of Control, Interest in schooling and self-efficacy) with the dependent variable (academic achievement) are measured with relevant standardized instruments. Two research questions are developed and answered.

**Results:** The results indicate that locus of control, interest in schooling and self efficacy jointly and relatively contribute significantly to the prediction of academic achievement of the Junior Secondary School Students.

**Conclusion:** Based on these findings, the simultaneous need to continuously stimulate the interest of the students and teach them time management, and for teachers to see all the three variables as equally important and to help students improve on them was emphasized.

**Key Words:** Locus of Control, Interest in Schooling, Self-efficacy

## 尼日利亞奧孫州中學生求學心志及自我效能作為預測初中學業成就的內外控研究

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### 摘要

**背景：**學業成績是一個有趣而重要的議題，所有講授、學習活動都以此為本，採用某些標準去衡量其得失，例如卓越或差勁的學習成績和學業失敗。

**目的：**研究中學生求學心志及自我效能作為預測初中學業成就的內外控。

**對象：**這項研究的樣本為500名學生，包括300名男孩和200名女童，這是從廿五所中學通過分層隨機抽樣而得，分層的因素是以班為單位的學生。

**方法：**採用事後追溯研究，通過適合的評估工具去找出三個獨立變量（內外控、求學心志和自我效能）與因變量（學業成績）的關係，去解決兩個研究問題。

**結果：**發現內外控、求學心志和自我效能共同和相對準確地預測初中學生的學業成就。

**總結：**根據這些調查結果，需要同時不斷激勵學生的興趣和教他們善用時間，以及讓教師看到所有這三個變量同樣重要，強調幫助學生提高對三個變量的投入。

**關鍵詞：**內外控；求學心志；自我效能

## Introduction

Academic achievement is interestingly an important issue; a fundamental premium upon which all teaching-learning activities are measured using some criteria of excellence e.g. good academic performance, poor academic performance and academic failure. Academic achievement has special importance for both the student, and the people around him or her (El-anzi, 2005). The concern for improving academic achievement has also increased in recent years. The reason for this can be attributed to the high percentage of poor performance of the students at the secondary school level in recent time. According to the report by the two examination bodies in charge of secondary school certificate examination in Nigeria, National Examination Commission (NECO) and West African Examination Council (WAEC) “more than half of the candidates who took the two examinations between 2000-2003 failed”. It is worthy to note that in Nigeria, the successful six-year secondary education is the foundation or the basis of studentship in the University, College of Education or Polytechnic.

Researchers (Adeyemo 2001, 2005; Aremu, 2000; Yoloje, 2004; Zimmerman, 2000; Bong and Skaavik, 2003) have reported that academic achievement is associated with socio-psychological variables as well as other notable variables. These socio-psychological variables according to them may include self-concept, self-esteem, self-confidence, self-regulation, locus of control, self-efficacy, interest in schooling, study-habits and so on. The question of how these variables can be managed to improve academic achievement of the secondary school students is still a complex one. Anyway, Universities, Colleges of Education and Polytechnics will stand to profit from a synthesis of research findings associated

with the improvement of academic achievement of the secondary school students in Nigeria and some other parts of the world.

In the light of the above, this study was designed to find out the extent to which locus of control, interest in schooling and self-efficacy can predict academic achievement of the secondary school students. If this is possible, then the researcher will make recommendations for individual students to exercise proper control of self and for enhancing students’ interest and self-efficacy. It should also be noted that researches examining socio-psychological variables and their relationship with academic achievement or learning outcome are still very limited particularly from the sample of Nigeria secondary school students. This necessitates the conduct of this research at the present time. It is expected that the outcome of this study will assist the secondary school educational stakeholders in Nigeria, particularly the two examinations bodies mentioned earlier together with secondary school teachers and educational authorities, in deciding on how best to improve students’ academic achievement from the socio-psychological variables perspective.

## Literature Review

### Locus of Control

Locus of control is an individual’s belief regarding the causes of his or her experiences and the factors to which that person attributes success or failure (Njus & Brockway, 1999). This can either be internal or external (Rotter, 1966). If a person has an internal locus of control, that person attributes success to his or her own effort and abilities. A person who expects to succeed will be more motivated and more likely to learn. This person will seek out information and he or she is more likely to have good study habits

and a positive academic attitude. On the other hand, a person with an external locus of control attributing his or her success to luck or fate, will be less likely to make the effort needed to learn.

In relation to academic achievement, students with internal locus of control were more likely to believe that the achievement was related to their ability and failure related to a lack of effort (Thelma, 1998). Thelma (1998) explains that, at the other end of the continuum were the students with external locus of control who were more likely to reject responsibility for failure. The researcher concludes that for academic success, the students with external locus of control are more likely to believe that their hard work or their intellectual ability do not cause their success. Recent researches have indicated that an internal locus of control is strongly correlated not only with completion of tasks (Parker, 1999), but also with academic success. Additionally, Coleman and Deleire (2000) report that locus of control strongly influence academic achievement and decision to graduate from high school.

Anderson, Hattie, and Hamilton (2005) used a novel multidimensional locus of control instrument Locus of Control, Self-Efficacy and Externality (I-SEE) to investigate the relationship between locus of control, motivation, and academic achievement in three different types of school. The strengths of the I-SEE are that it incorporates the construct of self-efficacy and that it is embedded in a model of personality and action based on field-theoretical conceptions. It includes the role of the environment and personality in determining action. The results support a multidimensional conceptualisation of locus of control and the utility of the I-SEE. There were statistically significant differences between schools for motivation and achievement and also a mediating

effect between locus of control and school type, suggesting that interactional models are required in investigations of motivation and achievement. Furthermore, moderate levels of locus of control and self-efficacy appear to be more adaptive than either extremely high or low levels.

Martinez (2003) examines the impact of academic self-efficacy, locus of control, and achievement motivation on academic achievement. Ninety-five 7<sup>th</sup> and 8<sup>th</sup> grade students derived via a convenience sample from a district in the Central Valley of California participated in the study. The students were surveyed using three scales: the Multidimensional Children's Perception, Harter's Scale of Intrinsic Versus Extrinsic Orientation in the Classroom, and the Student Self-Concept Scale. Among the significant findings: non-Hispanics demonstrated a higher level of achievement motivation than Hispanics. It is suggested that interventions should be designed to promote academic self-efficacy and achievement motivation in children. The author believes this may kindle academic growth.

In the light of these Liu, Lavelle and Andris (2000) suggest that there is need to continue study Locus of Control since it affects achievement as a predictor of persistence in education. Hence the major focus of the present study is to find out if locus of control together with interest in schooling and self-efficacy could predict academic achievement.

Locus of control being included as one of the variables in this study is based on the fact that studies that report its relation to academic achievement in literature are already old and outdated. There is the need to re-establish the relation in view of the fact that various development have taken place which might bring variation in the results or confirm what has been established in the past.

## Interest in Schooling

The past years have witnessed the evolution of research pertaining to interest. Several studies concerned with the effect of interest factors on academic achievement in secondary schools have yielded positive result. Meanwhile Adeyemo (2005) posits that “the importance of interest in whatever a person does cannot be underestimated”. He asserts that “when it comes to making choice, interest is of considerable importance” (pp.166). When making a distinction about the structure of interest Hidi and Anderson in Adeyemo (2005) identified two forms of interest, namely, personal and situational interest. They explain that a student can approach a learning situation with or without interest. Situational interest on the other hand, refers to an interest that people acquired by participating in an environment or context. In this study therefore, interest is linked to the student in relation to school. Individual interest has been hypothesized to be a relatively enduring predisposition to attend to certain objects and activities, and it associates with positive affect, persistence and learning (Hidi & Ainley, 2002; Krap, 2000; Reninger, 2000). Reninger (2000) asserts that “people working with individual interests are motivated learners, their activity appears purposeful, sustained, and ever deepening; they do not really need to make a choice to learn subject matter that is of individual interest to them” (p.19). Choice, to Reninger in this sense is largely an effortless process. As Schiefele (1991) observes, interest leads to a mastery goal orientation when learners are motivated by interest. Learners are motivated by intrinsic reward when they recognize that, in the pursuit of an interest, they will be drawn to master the knowledge skills, not just to demonstrate them (Bandura in Edelson and Diana, 2001).

Following the theoretical framework developed by Krapp, Schiefele and Koller et al. (2001) interest is considered a person-object relation that is characterised by the value commitment and positive emotional valences. Interest driven activities are characterised by the experience of competence and personal control, feelings of autonomy and self-determination, positive emotional states under optimal circumstances, an experience of flow whereby the person and the object of interest coincide (Csikszentmihalyi and Schiefele, 1993). Schiefele et al. (1992) conclude that the overall correlation between interest and academic achievement was about .30; however this relation was heterogeneous across different school subjects and indicators of achievement. Since most studies in this area of research are cross sectional based on correlations, Schiefele (1998) concludes that:

Firstly, most of the cognitive ability and level of prior achievement or knowledge were not included as additional predictor variable. Consequently, one cannot say precisely whether interest predicts achievement. Secondly, most of these studies were correlational in nature and thus do not allow causal conclusion. Additionally, there is a substantial body of literature on academic interest as an intrinsic motivational determinant of academic achievement (e.g. Koller, Baumert & Schnabel, 2001; Koller, Schnabel, & Baumert, 1998; Krap, 1998, 1999, 2000; Schiefele, 2001; Schiefele, Krap & Wintele, 1992).

Several researchers have proposed that academic achievement affect interest (e.g. Krapp, 2000; Koller et al. 1998). Baumert et al. (1998) suggest that the effect of achievement on interest might be mediated through academic self-concept. Koller et al. (2001) argue that the role of interest is particularly relevant in mathematics because it is perceived

as a very difficult subject in which motivational factors are very important for enhancing academic achievement. Empirically, Schiefele (1992) reports on an overall correlation between interest and academic achievement, while Odinko and Adeyemo (1999a & b) find that interest in schooling together with other socio-psychological factors are good predictors of students' learning outcome in and attitude to English language respectively. In a longitudinal study conducted by Koller et al. (2001) which covers the high school years, it is found that interest in mathematics has no direct effect on achievement but has effect on course work selection and achievement. Their result suggests that prior academic achievement affects subsequent interest in mathematics. Findings on empirical relations between interest, learning and achievement have also indicated that interest-based motivation has favourable effects on both the process and the outcome of learning (Schiefele, 1991, 1996a; Hidi and Reninger, 1992; Krap, 1998). Similarly, Tella (2003) and Adeyemo (2005) report on significant prediction of academic achievement by interest in schooling. In the present study the emphasis is to determine the effect of students' interest on their academic achievement. Going by Krap's (1999) observation, it seems clear that educational research should investigate how an individual interest develops, and which conditions, content or topics offered in school can become an integral part of a student's individual interest structure. The correlation of interest in schooling with academic achievement and performance is mixed. Moreover, research addressing this issue in the Nigeria context particularly from the perspective of Osun State secondary school is insufficient. It is in the light of this that the present study includes this very important variable to establish its comparison with

academic achievement from the sample of secondary school students from the Osun State Nigeria.

### **Self - Efficacy**

People's beliefs about their abilities in particular domains are thought to be important in motivating them to do what they can do to achieve (Hawthorne, 2004). The three aspects that have received the most attention in research are: (a) self-efficacy - defined as confidence in one's abilities to successfully perform a particular task; (b) outcome expectancy - defined as beliefs that a particular behaviour will result in particular outcomes; and (c) causal attributions - defined as one's judgments about what causes success or failure to perform tasks (Shell, Bruning, & Colvin, 1995). Only self-efficacy will be discussed in this study in relationship to student's academic achievement.

Bandura (1997) introduces the concept of self-efficacy as a key component in social cognitive theory in the late 1970s and it has been found to be an important predictor of student achievement (Zimmerman, 2000). One of the major components of Bandura's (1986) social cognitive theory is self-efficacy. To Pajares (1996) this self-efficacy and other expectancy beliefs share some similar characteristics because they are beliefs about one's perceived capacity; but they differ in that self-efficacy is defined in terms of individuals' perceived capabilities to attain designated types of performance and achieve specific results. In the academic realm, self-efficacy belief has received increasing attention in such areas as academic motivation and self-regulation (Pintrich & Schunk, 1995). Academically therefore, self-efficacy refers to one's perceived capability to perform given academic tasks at the desired level (Schunk, 1991). Self-efficacy is related only to performance expectations and does not depend on

the value placed on the task (Hawthorne, 2004). For example Bandura (1997) notes that it is possible to have high self-efficacy about a capability that one does not particularly value as well as the reverse. The more specific and skill-related the self-efficacy measure is, the more predictive it is likely to be for performance achievement.

Studies have confirmed strong relationship between self-efficacy and academic achievement or learning outcomes (Pajares, 1996; Pajares & Kransler, 1994, 1995). Zimmerman's (2000) review of major findings on self-efficacy beliefs concludes that the variable positively relate to motivation. Researchers have found that students who are self-efficacious are more likely to undertake difficult and challenging tasks than students who are not self-efficacious. Moreover, they are more likely to exert more effort and to persist longer in the face of difficulties. It has been found that perceived self-efficacy influences students' ways of learning as well as their motivational processes. Students who are self-efficacious appear to use more self-regulating strategies which lead to higher achievement (Hawthorne, 2004).

Moreover, researchers have demonstrated that self-efficacy perceptions are also good predictors of reasonable generalized performances such as obtained grades (Bandura, 1993; Zimmerman, Bandura & Martinez-Pons, 1991). Likewise, Adeyemo (2001) reports that students' curricular option was influenced by self-efficacy.

It is evident from the above that self-efficacy seems to have a significant impact on student's academic achievement. However, this has not been well confirmed from the sample of Nigerian secondary school students. The need to carry out studies that include the investigation of self-efficacy

to see how it determines or predicts academic achievement is considered very important in view of making literature and empirical report available in this subject matter from the Nigeria context. This study therefore poses to find out if similar results as reported in the literature will be obtained from the population of the Nigerian secondary school students.

### **Academic Achievement**

The concept of academic achievement is defined by Avoseh (1983) as a view on how well an individual has done in his cognitive tasks. The author explains further that it is the general ability of students regarding their performance in school subjects compared to a specified standard called 'Pass Marks'. To him, this pass mark is relative and can be arbitrarily define as 40% or 50%. This may also be referred to as the criterion of excellence (Aremu & Adika, 2001). The term also means the attainment of success of a student in his school work among his classmates.

Many studies have been conducted to determine the factors affecting the academic achievement of Secondary School Students. Reports have confirmed that students' personality characteristics, like socio-psychological variables, are good predictors of academic achievement (Abe, 1995; Umoinyang, 1998; & Odinko, 1999). It is in the light of this, seeing the lack of studies on socio-psychological variables, that the present study identifies some variables like locus of control, interest in schooling and self-efficacy whose correlation with academic achievement have not been so much reported in literature in the Nigeria context. Additionally, this study attempts to find out the joint effects of these three variables with the extent of their contribution to academic achievement of Nigeria secondary school students. To achieve

the objectives of the study therefore the following research questions are raised and answered. 1. What is the joint effect of locus of control, interest in schooling, and self-efficacy (independent variables) on the academic achievement of junior secondary school students? 2. What is the relative effect of locus of control, interest in schooling, and self-efficacy on the academic achievement of the students?

## **Method**

### **Research Design**

The study adopted an ex-post-facto research approach. It is an after the fact study. This approach does not involve the manipulation of variables and it neither adds to nor subtracts from the existing facts. It observes carefully and records information as it naturally occurs at the time the study is conducted.

### **Participants**

Twenty-five secondary schools selected through stratified random techniques were used in the study. In each of the randomly selected schools, participants were selected through a simple random technique. On the whole, five hundred students (500) comprising 300 boys and 200 girls participated in the study. This disparity was due to the level of research bias on the part of the female students which make them think participating in a research exercise was a mere waste of time. Participants were all drawn from Junior Secondary Class Three (JSS 3). Their age ranged between 12-15 years with a mean age of 13.5 and standard deviation of 2.1.

## **Instrumentation**

### **Locus of Control Scale.**

In order to improve the validity of this study, Trice's academic LOC scale (1985), including 28

'True' or 'False' items was used to measure Locus of Control. One of the items in the scale reads as follows: "College grades most often reflected the effort you put into classes". This scale was chosen because it is highly related to students' academic environment and was validated for the Nigerian population. The maximum score for each item is 1 point. So the maximum total for this scale is 28 points. For this scale, higher scores represent greater externality and lower scores represent higher internality. The average score for internality and externality in the instrument is 14. The scale has high validity and reliability and has been widely used in most of the recent relevant researches (e.g. Yuliang, Lavelle, and Andris, 2002; Lease, 2004).

### **Interest in Schooling Scale.**

The interest in schooling scale developed by Mitchell (1993) was used as a measuring tool. It was modified by Umoinyang (1998) to suit the Nigeria environment. It is a ten-item 4 points Likert type response scale. The formats of response ranges from strongly agree (4) to strongly disagree (1). The instrument has a Cronbach alpha value of 0.79.

### **Self-Efficacy Scale.**

To measure self-efficacy in this study, the Morgan-Jinks students' self-efficacy scale developed by Morgan and Jinks (1999) was used. The instrument is a thirty-item scale and has an overall reliability coefficient of 0.8. The subscales Alpha are 0.78 for talents, 0.70 for context and 0.66 for efforts. This as well refers to the sample of the study. The instrument has a response format ranging from 'Really agree (1) to Really disagree (4).

### Academic Achievement Score.

The students' scores in the three key subjects in their previous promotion examinations were used to represent academic performance scores. The subjects were English Language, Mathematics and Integrated Science. Each student's score in these three subjects were summed up and divided by 300 then multiply by 100 to get the percentage performance of each subjects. This has a reliability index of  $\alpha r = 0.75$ .

### Procedures

The researchers went to the sample schools to administer the instruments based on the approval of the authority in each school. The researchers were assisted by some teachers in the administration and collection of the instruments. In each of the selected schools, the instruments were administered and collected on the same day. Five schools were covered per week; and so the exercise lasted for five weeks. Out of the six hundred and fifty questionnaires distributed, only 500 were properly filled. They were taken for the analyses in the study.

### Method of Data analysis

The multiple regression analysis, ANOVA and multiple correlation statistical tools were employed to analyse the data. Multiple regression was used to find out the joint prediction of each of the variables and their extent of predicting academic achievement. ANOVA was used to determine the joint contribution of the variables (Independent) to academic achievement (dependent). Moreover, multiple correlation was used to find out the correlation and inter-correlation of the variables with academic achievement.

### Results

Table 1 contains descriptive statistics and inter-correlation among the variables. The table shows that, academic achievement correlates with (1) Locus of control ( $r = .365$ ;  $p < 0.05$ ); (2) Interest in schooling ( $r = .411$ ;  $p < 0.05$ ) and (3) Self-efficacy ( $r = -.466$ ;  $p < 0.05$ ). This shows that all the three variables significantly correlate with academic achievement. Moreover, significant correlations also exist among the three independent variables.

Table 1:

*Descriptive Statistics and Interco Relations among the Variables*

Variables	N	Mean	SD	Academic achievement	Loc	Interest in schooling	Self-efficacy
Academic achievement	500	68.3678	17.5120	1.0000			
Locus of control	500	29.1456	5.1251	.365**	1.0000		
Interest in schooling	500	31.8068	7.4516	.411**	.771**	1.0000	
Self-efficacy	500	45.7175	11.0025	-.466**	-.321**	.302**	1.0000

N = 500, correlations greater than .30 are significant at  $P < .05$ , \*\*  $P < .001$ .



The first research question seeks to find out the combined effect of Locus of Control, Interest in Schooling and Self efficacy (independent variables) on academic achievement of the subjects. The result is presented in table 2 below.

Table 2:

*Multiple Regression Analysis on Academic Achievement Data*

<b>Multiple R (adjusted = 0.514 R<sup>2</sup> (Adjusted = 0.322 Standard Error of Estimate = 4.14)</b>				
	Sum of squares (SS)	Df	Mean square	F
Regression	12187.561	3	4062.520	232.7
Residual	8660.236	496	17.460	
Total	7	499		

Table 2 above shows that the independent variables (Locus of Control, Interest in Schooling and Self efficacy) when combined together show significant effect on the academic achievement of the respondents. The values of R (adjusted) = 0.514 and R<sup>2</sup> (adjusted) = 0.322. This implies that the three independent variables (locus of control, interest in schooling and self-efficacy) together contribute to

51% prediction of academic achievement; thereby indicating that they are good predictors of academic achievement.

The analysis of variance worked out on multiple regression yields an F-ratio value of 232.7 and is found to be significant at 0.05 levels. ANOVA is used here to determine whether or not the three variables significantly contribute to academic achievement.

Table 3:

*Relative Contribution of the Independent Variables to the Prediction*

	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>P</b>
Model	B	Standard error	Beta		
Constant	32.412	4.194		11.6	<0.05
Locus of control	.3664	.079	.344	5.41	<0.05
Interest in schooling	.249	.077	.189	2.27	<0.05
Self efficacy	.187	.074	.268	1.63	<0.05

Table 3 above shows that each of the independent variables made a significant contribution to the prediction of academic achievement. Considering the extent of contribution, Locus of control makes the most significant contribution (Beta = .364;  $t = 5.41$ ;  $P < 0.05$ ) to the prediction. Other variables make significant contributions in the following order: Interest in Schooling (Beta = .249;  $t = 2.27$ ;  $P < 0.05$ ) and self efficacy (Beta = .187;  $t = 1.63$ ;  $P < 0.05$ ).

### Discussion

This study examines locus of control, interest in schooling and self-efficacy as predictors of academic achievement of students at junior secondary school. The result has so far revealed that the three variables correlate with and significantly predicts academic achievement.

The result of the first research question shows that the three independent variables have a joint effect on the academic achievement of the subjects. The degree of the effectiveness of the three independent variables is manifested in the value of  $R = 0.514$  and  $R^2$  (adjusted = 0.322). The result thus implies that 32.2% of the variance in the academic achievement of the Junior Secondary School Students accrue to the linear combination of the three variables. The value of F-ratio computed gives more weight to the result. This is an indication that the three independent variables have the capacity of predicting academic achievements, which could not happen by accident or be due to chance. This finding is in accordance with the work of previous researchers (Parker, 1999; Coleman & Deleire, 2000; Adeyemo, 2005; Hidi & Ainley, 2002; Krap 2000; Koller et al. 2001; Tella, 2003; Tella & Tella, 2005; Pajares, 1996; Bandura, 1993; Zimmerman, et al. 1991 & Schunk, 1991).

The significant impact of the Locus of Control

on the academic achievement as indicated in this study cannot be overemphasized. This means that students who are not performing well academically are more likely to be easily contented with just minimal success and performance. It also implies that the better the achievement of a student in school work the more he/she is able to use Locus of Control to enhance performance.

The significant contribution of interest in schooling is very important to note. As the respondents are in their third year in secondary school, the teachers' instruction/teaching methods, the calibre of friends and peers they mingle with, the learning environment cum teachers/students relationship may all contribute to their interest and eventually having great impact on their academic achievement.

Self-efficacy makes the least contribution but is found to be significant. The explanation by Bandura (1997) based on this result is something to go by as he says that those who have a sense of efficacy in mastering academic task tend to learn better in formal school environment as well as in informal environment outside the school. Be that as it may, the sky is the limit for students that have good self-efficacy.

### Implication of the Findings

There is no doubt about the fact that this study is very important as far as research on academic achievement is concerned. Essentially, it is imperative to mention its implication for educational and counselling applications. First, there is the need for students to develop locus of control (internal) for them to be able to always attribute their success to their own efforts. To achieve this, students may need to be taught how to individually develop their

learning strategies, plan their goals, and how they plan to achieve those goals, with timeline and the expected outcome. This will only be possible if a research like this is taken into consideration by policy makers for immediate and prompt action. Policies that will reflect and advocate development of internal motivation right from elementary school should be formulated. When doing this, individual differences should be considered as this can mar the achievements pupils make.

The policy makers should include in the educational blue prints strategies that will help pupils right from elementary school to develop goal setting skill, appropriate learning style (studying style), perception of self and time management skill. The policy should not just be a window dress blue print. It should be proactively implemented and monitored until the expected skills are developed by all students at different ages and levels.

It is noteworthy that the participants in this study are junior secondary school students; beginners for that matter. To make them go far in their education and become scholars of great repute their interest need to be constantly stimulated. The teachers have their role to play in this regard in terms of their instructional methods. The Government on the other hand needs to make provision for instructional materials that can facilitate the students' interest in schooling. They should not loose sight of the great impact and current role played by Information Technology in the world of education. In essence, they should make sure that computers and other ICT materials are distributed to schools, and if possible, make provision for Internet facilities in all secondary schools. This will go a long way to strengthening the interest of the young people in their academic paths since it has been established that ICT stimulate

students' interest in schooling and influence their performance and achievement. Furthermore, school authority should always make sure that students are not left out in decision-making. It is hope that this will promote their sense of efficacy beliefs about themselves and academic activities. Teachers should not see any of the variables in this study as superior to the other and hence neglect or ignore one at the expense of the other. They should endeavour to improve all of them simultaneously.

It is important to note some limitations of this study. First, the study is an ex-post-facto or causal comparative, and based on this the researchers cannot just assume any causal relationship between locus of control, interest in schooling and self-efficacy. Another noticeable limitation about the present study is that it drew sample only from among junior secondary schools, hence one cannot generalize the findings to other populations such as Universities, Colleges of education and Polytechnics students. Future researchers are therefore called upon to note these limitations and work out how they can be minimized so as to improve the generalizability of the findings. To further establish the prediction of students' locus of control, interest in schooling and self-efficacy on academic achievement, there is need for more relevant studies to be conducted among other Nigeria samples apart from the secondary school students.

## References

- Abe, C. U. (1995). A Causal Model of Socio – Psychological Variables as Predictors of Learning Outcomes in Social Studies. An Unpublished Ph.D. Thesis, Institute of Education University of Ibadan.
- Adeyemo, D. A. (2001). Self-efficacy and subject enrolment in secondary schools: An empirical inquiry. *Ibadan Journal of Educational Studies* 1 (1): 86-95.
- Adeyemo, D. A. (2005). Parental Involvement, Interest in Schooling and School Environment as Predictors of

- Academic Self-efficacy among Fresh Secondary School Students in Oyo State, Nigeria. *Electronic Journal of Psychology of Education* 5 (3): 1-15.
- Anderson, A, Hattie, J. & Hamilton, R. (2005). Locus of control, self-efficacy and motivation in different schools: Is moderation the key to success?. *Educational Psychology* 25 (5): 517-535.
- Al-Anzi, F. O. (2005). Academic Achievement and its Relationship with Anxiety, Self-Esteem, Optimism, and Pessimism in Kuwaiti Students. *Social Behaviour and Personality*. Retrieved Available at <http://www.findarticles.com> Accessed on 27/10/2005.
- Aremu, A.O.(2000). 'Academic performance 5-factor inventory'. Ibadan: Stirling-Horden Publishers.
- Aremu, O. S. & Adika, L. (2000). *The Development and Validation of Academic Performance 5 Factors Inventory: An Unpublished Manuscript*, University of Ibadan.
- Avoseh, O. (1985). The Influence of Sociological and Psychological Factors in Academic Performance of Secondary School Beginners. *Journal of Educational Leadership* 11:11-19.
- Bandura, A. (1986). *Social Foundation of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs: NJ: Prentice Hall.
- Bandura, A. (1993). Perceived Self-Efficacy in Cognitive Development and Functioning. *Educational Psychologist* 28: 117-148.
- Bandura, A. (1997). *Self-efficacy: The Exercise of Control*. New York: W. H. Freeman
- Baumert, J; Schnabel, K; & Lehrke, M (1998). *Learning maths in school: Does interest really matter*. In: L.Hoffmann, A Krapp, K.A Reninger & J Baumert (Eds.), *Interest and Learning* (327-336). Germany: IPN
- Boekaert, M; Otten, R; & Voeten, R. (2003). Examination performance: Are student's causal attributions, school-subject specific?," *Anxiety, Stress and Coping* 16 (3):331-342.
- Bong, M., & Skaalvik, E. (2003). Academic self concept and self efficacy. How different are they really? *Educational Psychology Review* 15: 1-40.
- Bruning, R.,Schraw, G; .& Royce, R. (1995). *Cognitive Psychology and Instruction*. Second ed.: Prentice Hall.
- Coleman, M & DeLeire, T. (2000). An Economic Model of Locus of Control and the Human Capital Investment Decision. *The Journal of Human Resources* 38. (3):701-721.
- Csikszentmihalyi, M; Schiefele, U. (1993). Die qualita des Erlebens und un der ProzeB des Lernens {The quality of experience and the process of learning}. *Zeitschrif fur Padagogik* 39:207-321.
- Edelson, D.C.& Diana, M.J. (2001). Motivating active learning: A design framework for interest riven learning," Available at: <http://www.findarticles.com> [Accessed 27 Nov. 2006].
- Gipps, C. y & Tunstall, P. (1998). Effort, ability and the teacher: Young children's explanations for success and failure. *Oxford Review of Education* 24 (2): 149-165.
- Hawthorne, S. (2004). Engaging reluctant writers in secondary school English," Retrieved from: <http://www.english.unitechnology.ac.nz> [Accessed 27 Nov.2006].
- Hidi, S. & Ainley, M. (2002). *Interest and adolescence.*' In: F. Pajares & T. Udan (Eds). *Academic Motivation of adolescents* (247-275). Greenwich Conn: Information Age.
- Koller, O., Baumert, J. & Schnabel, K. (2001). Does interest matter? The Relationship between Academic Interest and Achievement in Mathematics. *Journal for Research in Mathematics Education* 32: 448-470.
- Koller, O., Schnabel, K. & Baumert, J. (1998). The Impact of Academic Self-Concept of ability on the development of Interests during adolescence. *Paper presented at the Annual Meeting of the American Educational Research Association (AERA)* San Diego, CA.
- Krapp, A. (1998). "Entwickling und Forderung Von Interessen in Unterricht" (Development and Promotion of interests in Instruction). *Psychologie und Erziehung in Unterricht* 44: 185-201.
- Krapp, A. (1999). Intrinsische Lemotivation and Interest (Intrinsic Learning Motivation and Interest). *Zeitschrift fur Padagogik* 45: 387-406.
- Krapp, A. (2000). Interest and Human Development during Adolescence: An Educational - Psychological Approach' (109-128). In J: Heckhausen (Ed.) *Motivational Psychology of Human Development*. London: Elsevier.
- Lease, S.H. (2004). Effect of locus control, work knowledge, and mentoring on career decision-making difficulties: Testing the role of race and academic institution," *Journal of Career Assessment* 12 (3), 239-2564.
- Liu, Y. Lavelle, E; & Andris, J. (2002). Experience Effects of Online Instruction on Locus of Control. A Refereed Journal of the United States Distance Learning Association *USLDA Journal* 16: 6. Available: [http://www.usdla.org/html/journal/JUN02\\_Issue/article02.html](http://www.usdla.org/html/journal/JUN02_Issue/article02.html) Accessed on 27th 2006.
- Martinez, J.R. (2003). Academic locus of control achievement motivation, and academic self-efficacy: Predicting academic achievement in Hispanic and non Hispanic middle school children," Available at: <http://www.216.239.59.104csufresho.edu/graduatestudies> Accessed on 27th Nov.2006.
- Mitchell, M. (1993). Situational Interest: Its Multifaceted Structure in the Secondary School Mathematics Classroom. *Journal of Educational Psychology* 85: 424-436.
- Morgan, V. & Jinks, J. (1999). Children perceived academic self-efficacy: An Inventory Scale. *The Clearing House* 72 (4): 224-230.
- Njus, D.M. & Brockway, J.H. (1999). Perceptions of Competence and Locus of Control for positive and negative outcomes. *Personality and individual differences* 26: 531-548.
- Odinko, M.N. & Adeyemo, D.A. (1999). *Socio-Psychological Factors as correlates of seniors' secondary school students' attitude towards English Language*. In: J.O. Obemeata, S.O. Ayodele, & M.A. Araromi (Ed.) *Evaluation in Africa* (233-339). Ibadan: Stirling Horden Publisher (Nig.) Ltd.
- Odinko, M.N. & Adeyemo, D.A. (1999b). Students Socio-Psychological Factors as Predictors of Achievement in Senior Secondary School English Language. *African Journal of Educational Research* 5 (1): 126-133.
- Odinko, M.N. (1999). Social Psychological Factors as Correlates of Learning Outcome in English Language. An Unpublished M.Ed. Project Institute of Education,

- University of Ibadan.
- Pajares, F. & Kransler, J. (1994). Self-efficacy, Self-concept and general mental ability in mathematical problem solving'. Florida Educational Research Council Research Bulletin. Sanibel FL: Florida Educational Research Council.
- Pajares, F. & Kransler, J. (1995). Self-efficacy beliefs and general mental ability in mathematics problem-solving. *Contemporary Educational Psychology* 20: 426-443.
- Parker, A. (1999). A Study of Variables that Predict Dropout from Distance Education. *International Journal of Educational Technology*, 1 (2).
- Pintrich, P.R. & D.H. Schunk. 1995. "Motivation in Education: Theory, research and application," *Psychology Review* 15 (1): 1-40.
- Renninger, K.A. (2000). How Might the Development of Individual Interest contribute to the conceptualisation of intrinsic motivation? In: C. Sansome & J.M. Harackiewicz (Eds.). *Intrinsic and Extrinsic motivation: The Search for optimal motivation and performance*. New York: Academic Press.
- Rhtkonen, K. (2005). Parents causal attributions concerning children's school achievement: A longitudinal study. *Merrill-Larmer Quarterly* 51 (4): 494-522.
- Rotter, J.B. (1966). Generalized Expectancies for Internal Versus External Control of Reinforcement. *Psychological Monographs*, "General and Applied" 80(1): 1-26.
- Schiefele, U. (2001). *The Role of Interest in Motivation and Learning*'. In: J.M. Collis & S. Messick (Eds.) *Intelligence and Personality: Bridging the gap in theory and measurement* (163-194). Mahwah N.J.: Erlbaum.
- Schiefele, U. Krapp, A. & Winteler, A. (1992). *Interest as Predictor of Academic Achievement: A meta-analysis of research.*'. In: K.A. Renninger, S. Hidi & A. Krapp (Eds.), *The Role of Interest in Learning and Development* (183-212). Hillsdale NJ: Erlbaum.
- Schunk, D.H. (1991). Self-efficacy and academic motivation. *Educational Psychologist* 26: 207-213.
- Shell, D., Bruning, R; & Colvin, C. (1995). Self-Efficacy, Attribution, and Outcome Expectancy Mechanisms in Reading and Writing Achievement: Grade-Level and Achievement-Level Differences. *Journal of Educational Psychology* 87(3): 386-398.
- Tella, A. (2003). Study Habit, Interest in Schooling and Social Competence as Predictors Academic Achievement among Secondary Schools Students in Ibadan. *Maiduguri Journal of Educational Studies* 6 (1): 42-29.
- Tella, A. Jr & Tella, A. (2005). Locus of Control and Self-Efficacy as Determinant of Academic Achievement among Secondary School Students in Osun State Unity Schools. *Journal of Oyo State College of Education* 12 (3): 15-21.
- Thelma, Y.M. (1998). Variables Associated with Academic Achievement of African - American Males in Four - Year Undergraduate Educational Institutions: A Synthesis of Studies,' Unpublished Ph.D. Thesis, Virginia Polytechnic Institute and State University.
- Trice, A.D. (1985). An Academic Locus of Control Scale for College Students *Perceptual and Motor Skills* 61: 1043 - 1046.
- Umoiyang, I.E. (1998). Student Socio-Psychological Factors as Determinant of Achievement in Senior Secondary School Mathematics. Unpublished Ph.D. Thesis, University of Ibadan, Ibadan, Nigeria.
- Weiner, B. (2000). Interpersonal and intrapersonal theories of motivation from attributional perspectives". *Educational Psychology Review* 12 (1): 1-14.
- Yoloye, T.W.B. (2004). That we may learn better'. An Inaugural Lecture Presented on 7<sup>th</sup> October. Pp 29. University of Ibadan.
- Yuliang, L; Lavelle, E. & Andris. J. (2002). Experimental effects of online instruction on locus of control," *USDLA Journal: A Refereed Journal of the United States Distance Learning Association* 16(6). Retrieved from [http://www.usdla.org/html/JUN02\\_Issue/article02.html](http://www.usdla.org/html/JUN02_Issue/article02.html)
- Zimmerman, B. (2000). Self-Efficacy: An Essential Motive to Learn. *Contemporary Educational Psychology* 25(1): 82-91.
- Zimmerman, B.J., Bandura, A; & Martinez-Pons, M. (1992). Self-motivation for academic attainment: The role of self-efficacy beliefs and personal goal setting. *American Educational Research Journal* 29: 663-676.
- Zimmerman, B., & A. Kitsantas. (1999). Acquiring Writing Revision Skill: Shifting From Process to Outcome Self-Regulatory Goals. *Journal of Educational Psychology* 91(2): 241-250.

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