

ISSN 0333-8872

AFRICAN
JOURNAL OF EDUCATIONAL
RESEARCH

VOL. 5. NUMBER 1

APRIL 1999

UNIVERSITY OF IBADAN LIBRARY

PUBLISHED BY
THE DEPARTMENT OF TEACHER EDUCATION
UNIVERSITY OF IBADAN

Editorial Board

African Journal of Educational Research

Vol. 5 No. 1, April 1999

ISSN 0303-3872

Editorial Advisors

Prof. E. A. Yeloye

Prof. T. A. Balogun

Prof. J. A. Akintola

Prof. Margaret M. A. Mwanuzi

Prof. Kintu Akabi

Editorial Board (Nigeria) Ltd

University of Ibadan, Ibadan, Nigeria

1999

Printed

by Star Press

7 Alaka Street

Offices

Edo State, Nigeria

UNIVERSITY OF IBADAN LIBRARY

Editorial Board

Editor-In-Chief	–	Dr Oluremi Ayodele-Bamisaye
Editor	–	Dr Olusegun Akinbote
Associate Editors	–	Dr F. A. Adesoji
	–	Dr Isaac N. Ohia
	–	Dr C. O. Kolawole

Editorial Advisers

Prof. E. A. Yoloye
Prof. T. A. Balogun
Prof. J. A. Akinpelu
Prof. Maguzeni, M. A. Mwenesongole
Prof. Kunle Akanbi

Stirling-Horden Publishers (Nig.) Ltd.
University of Ibadan Post Office
Box 20984
Ibadan
Oyo State, Nigeria.

7 Ikioda Street,
Jattu-Uzairue
Edo State, Nigeria

Contents

Ability and Disability in Education: Some Philosophical Considerations — <i>Remi Bamisaiye</i>	1
The Green Club Effect: An Impact Assessment of Environmental Conservation Clubs in Some Nigerian Secondary Schools — <i>A. Mansaray and J. O. Ajiboye</i>	9
Biodiversity Conservation Awareness in Some Secondary Schools in Oyo State — <i>I. A. Ayodele and D. D. Betiku</i>	17
The Relative Effects of Values Clarifications, Lecture and Exposition on The Population Knowledge of Pre-Service Teachers — <i>Biodun Ogunyemi</i>	23
Sex Differences in the Cognitive and Affective Outcomes in Social Studies of Primary School Pupils — <i>Olusegun Akinbote</i>	34
Assessment Procedure Student cognitive Style and Gender as Determinants of Physics Performance at Cognitive Level of Thinking — <i>P. N. Okpala and Femi A. Adeoye</i>	39
Interaction Patterns in Primary School Science Classroom in Ijebu-Ode, Ogun State — <i>B. J. Ogunkola</i>	51
The Job Attitudes of Some Nigerian Secondary School Teachers — <i>A. O. S. Adegoroye</i>	62

- The Use of Psychological Research as Appraisal and Predictive Alternatives for Improving Learning Output of Distant Learners.**
— *J. O. Osiki* 70
- Strategies for Improving the Performance of Female Pupils in Mathematics**
— *Aremu, Ayotola* 77
- Topic Difficulty in Senior Secondary School Mathematics**
— *I. O. Onabanjo* 86
- Effects of Instruction on Students' Performance on Knowledge, Comprehension, and Application Tasks in Mathematics**
— *M. K. Akinsola* 94
- Mock Examination Results and Students' Gender as Correlates of Performance in the Senior Secondary School Certificate Examinations in Mathematics**
— *Francis A. Adesoji* 101
- Typology of Errors in the Written Essay of Nigerian Senior Secondary School Students**
— *Francis O. Ezeokoli* 108
- Teachers' Perception of Yoruba Language Curriculum in Selected Secondary Schools in Ogun State**
— *O. O. Sotonwa* 119
- Students' Socio-Psychological Factors as Predictors of Achievement in Senior Secondary School English Language**
— *M. N. Odinko and D. A. Atleyemo* 126

Curriculum Recycle Theory: A New Paradigm for Making The Reading-Writing Connection

— *Isaac N. Ohia and Margaret O. Ogunbiyi* 134

The Relative Effectiveness of Indirect and Direct Instructional Strategies on Pupils Acquisition of Writing Skill

— *Esther A. Oduolowu* 141

Record Management in a State Public Schools in Nigeria

— *S. O. Popoola* 147

An Investigation into the Contributions of the Moniya Rehabilitation Centre to The Training of the Handicapped

— *B. O. Lawal* 158

Effects of Gender and Parenting Style on Academic Performance of Undergraduate Students of a Nigerian University

— *Amos O. Aremu* 169

Determining Pre-Service and Serving Secondary School Teachers' Acquisition of Education Technology Concepts

— *Olufemi V. Adeosun* 175

Nigerian Textbook Publishers' Perception and Utilization of Information in Decision-Making Tasks

— *Oshiotse Andrew Okwilagwe* 184

Notes on Contributors

Dr Remi Bamisaiye is a Senior lecturer in Philosophy of Education and the Acting Head, Department of Teacher Education, University of Ibadan.

Dr A. Mansaray is a Senior lecturer in social and Environmental Education, Department of Teacher Education, University of Ibadan.

Dr J. O. Ajiboye is a lecturer in Social and Environmental Education, Department of Teacher Education, University of Ibadan.

Dr I. A. Ayodele is a Senior lecturer in the Department of Wide-Life and Fisheries Management, University of Ibadan.

Mr. D. D. Betiku is a higher degree student in the Department of Wide-Life and Fisheries Management, University of Ibadan.

Dr Biodun Ogunyemi is a lecturer in Social Studies Education, Ogun State University, Ago-Iwoye.

Dr Olusegun Akinbote is a lecturer in Pre-Primary/Primary and Social Studies Education, Department of Teacher Education, University of Ibadan.

Dr P. N. Okpala is a Research Professor of Education, Institute of Education, University of Ibadan.

Mr Femi A. Adeoye is a higher degree student in the Department of Teacher Education, University of Ibadan.

Mr. B. J. Ogunkola is a Research Fellow, Institute of Education, Ogun State University, Ago-Iwoye.

Dr Ayotola Aremu is a lecturer in Educational Technology, Department of Teacher Education, University of Ibadan.

Mrs I. O. Onabanjo is a lecturer in the Faculty of Education, Ogun State University, Ago-Iwoye.

Dr. M. K. Akinsola is a lecturer in Mathematics Education, Department of Teacher Education, University of Ibadan.

Dr Francis A. Adesoji is a lecturer in Chemical and Science Education, Department of Teacher Education, University of Ibadan.

- Dr Francis O. Ezeokoli is a lecturer in Language Education, Department of Teacher Education, University of Ibadan.
- Dr O. O. Sotonwa is a Senior lecturer in the Department of Curriculum Studies, Ogun State University, Ago-Iwoye.
- Miss M. N. Odinko is a higher degree student in the Institute of Education, University of Ibadan.
- Dr. D. A. Adeyemo is a lecturer in the Department of Guidance and Counselling, University of Ibadan.
- Dr Isaac N. Ohia is a lecturer in Language Education. Department of Teacher Education, University of Ibadan.
- Dr Margaret Ogunbiyi is a Lecturer in French Language Education, Lagos State University, Ojoo-Lagos.
- Dr Esther A. Oduolowu is a lecturer in Early Childhood Education, Department of Teacher Education, University of Ibadan.
- Mr S. O. Popoola is a lecturer in the Department of Library, Archival and Information Studies, University of Ibadan.
- Dr B. O. Lawal is a lecturer in History and Policy of Education and Comparative Education, Department of Teacher Education, University of Ibadan.
- Dr Amos O. Aremu is a lecturer in the Department of Guidance and Counselling, University of Ibadan.
- Mr Olufemi V. Adeosun is a lecturer in Educational Technology, Ondo State University, Ado-Ekiti.
- Dr A. O. S. Adegoroye is a lecturer in the Department of Guidance and Counselling, Ondo State University Ado-Ekiti.
- Dr J. O. Osiki is a lecturer in the Department of Guidance and Counselling, University of Ibadan.
- Dr. Andrew O. Okwilagwe is a Senior lecturer in the Department of Library, Archival and Information Studies, University of Ibadan.

Students' Socio-Psychological Factors as Predictors of Achievement in Senior Secondary School English Language

M.N. Odinko and D.A. Adeyemo

Abstract

The study sought to explain senior secondary (SS) students' achievement in English language using some student socio-psychological variables: home language; locus of control; study habits; career aspiration; interest in schooling; self-concept; and test anxiety. Data on the relevant variables was collected from 448 SSII students in Akinyele and Ibadan North Local Government Areas of Oyo State, Nigeria. Data analysis involved using stepwise multiple regression to examine the relationship between English language achievement and the seven independent variables. The results show that the socio-psychological variables, when taken together, effectively predicted English language achievement among senior secondary school students. The results also indicate that each of the variables contributed significantly to the prediction; and that self-concept is the most potent contributor. These findings have implications for English language teachers and counsellors who are interested in solving problems of secondary school students' underachievement in English language.

Introduction

English language is the official language of the Nigerian educational system. Thus, it has to be learnt by everybody particularly those of school age. In addition, a good pass (at least credit level) in English language at the Senior Secondary Certificate (SSC) examination is a prerequisite for securing either admission to various universities in the country or for a good job in various sectors of the Nigerian economy. This notwithstanding, secondary education in Nigeria is associated with the problem of students' under-achievement in English language (Adepoju, 1999). As noted by Okwilagwe (1998), this problem is a major one that requires urgent and serious solution.

Many researchers have tried to proffer solutions to the problem (Ayodele, 1988; Okedara, 1997; Adepoju, 1999). These studies have stressed the need to improve on socio-psychological variables of learners. However, the studies despite their scope and perhaps depth, only examined through a univariate approach the

relationship between one or more socio-psychological variables and English language achievement. The studies also did not provide empirical evidence of the chronological order and strength of any relationship between English language achievement and students' home language (language most often used while speaking at home), study habits, test anxiety, self concept, locus of control, career aspiration and attitude towards schooling particularly when these variables are taken together. This is in spite of the fact that English language is a living language in the Nigerian educational setting and thus should be encouraged (at the written and oral levels) in both home and school settings in the country (Okpala and Onocha, 1988).

This background provides the rationale for the present study which examined home language as among student socio-psychological variables that could influence Nigerian secondary school students' achievement in English language. It is the contention of the investigators that a better understanding of the interactions between the socio-psychological variables and English language achievement, especially when the variables are taken together, would be of considerable help in developing a more effective theory and practical techniques for English language teaching in Nigerian secondary schools. It is also hoped that the findings would provide some empirical basis for counselling secondary students in Nigeria with the ultimate goal of enhancing achievement in English language.

State of Problem

The present study sought to find out the extent to which some socio-psychological variables (home language, locus of control, study habit, career aspiration, interest in schooling, self concept, and test anxiety) provide an explanation for the poor state of learning outcomes in English language among senior secondary school students in Nigeria.

Specifically, the study sought to provide answers to the following questions:

1. To what extent would the seven socio-psychological variables when taken together predict senior secondary school students' achievement in English language?
2. What is the relative contribution of the variables to the prediction?

Methodology

(a) Sample

The sample was obtained through cluster sampling procedure. The investigators stratified the 27 secondary schools in Akinyele and Ibadan North Local Government Areas of Oyo State on the basis of LGA. Simple random sampling was also used to select 35% of the schools in each LGA to participate in the study. In each selected school, simple random sampling was also used to pick one class of SS II to participate in the study. All the students in the selected class participated in the study.

In all, the subjects consisted of 448 students (250 boys' and 196 girls) from 10

secondary schools. Their ages ranged from 15 to 18 years (mean age = 16.8 years; SD = 2.1).

(b) Instrumentation

Seven instruments were used to collect data for the study. They are: (i) Locus of Control Rating Scale (Cronbach coefficient alpha value of 0.87); (ii) Interest in Schooling Scale (Cronbach coefficient alpha value of 0.83); (iii) Attitude Towards English Language Inventory (Cronbach coefficient alpha value of 0.87); (v) Self Concept Rating Scale (Cronbach coefficient alpha of 0.89); (vi) Serason Test Anxiety (reliability values ranged from 0.86 - 0.98); and (vii) English language Achievement Test (a test-retest reliability estimate of 0.91).

(c) Data collection and Analysis

The instruments were administered to the subjects in the ten schools selected for the study by the investigators. The English language achievement test was administered first. The remaining instruments were counterbalanced to protect against systematic bias due to fatigue from or disinterest in completing the extensive survey. Data collection lasted for two weeks.

Data analysis involved the use of stepwise multiple regression procedure to examine the relationship between the seven socio-psychological variables (independent variables) and achievement in English language (dependent variable).

Results

Table 1 shows that the use of seven socio-psychological variables (student home language, career aspiration, locus of control, interest in schooling, study habits, self-concept and test anxiety) to predict achievement in English language yielded a multiple regression coefficient (R) of 0.8694 (adjusted) and multiple regression square (R^2) of 0.7559 (adjusted). The table also shows that analysis of variance of the multiple regression data yielded an F-ratio of 198.72 (significant at the 0.01 level).

Table 1: Regression Analysis on Achievement Data

Multiple R (adjusted) = 0.8694				
Multiple R^2 (adjusted) = 0.7559				
Standard Error of Estimate = 8.59				
Analysis of Variance				
Source of Variation	df	SS	MS	F-ratio
Due to regression	7	102665.06	14666.44	198.72*
Due to residual	440	32472.82	73.80	
Total	447	135137.88		

* Significant at the 0.01 level

Table 2 shows for each independent variable the standardised regression weight (B), the standard error of estimate (Se B), the degree of freedom (df), the T-ratio, and the level at which the T-ratio is significant. As indicated in the Table, the T-ratio associated with each of the variables is significant at the 0.05 level.

Table 2: Relative contribution of the Independent Variables to the Prediction

Variable No.	Variable	Std.Reg. Wt. (B)	SeB	df	T-ratio	P-value
1.	Home Language	0.1526	0.03	1,440	5.50	0.05
2.	Career Aspiration	0.0476	0.02	2,439	2.01	0.05
3.	Locus of Control	0.2600	0.05	3,438	4.92	0.05
4.	Interest in Schooling	0.1551	0.04	4,437	3.69	0.05
5.	Study Habit	0.0918	0.05	5,438	1.94	0.05
6.	Self-Concept	0.2660	0.04	6,435	6.98	0.05
7.	Test-anxiety	0.2278	0.03	7,434	7.85	0.05

Discussion

The results of the present study reveal that the seven socio-psychological variables, when taken together, seem to be effective in predicting English language achievement of secondary school students. The observed F-ratio is significant at the 0.01 level - an indication that the effectiveness of a combination of the independent variables in predicting students' achievement in English language could not have occurred by chance. The magnitude of the relationship between the achievement level of the students and a combination of the independent variables is reflected in the values of coefficient of multiple regression (0.8694) and multiple R squared (0.7559) as shown in Table 1. It may thus be said that about 75.6% of the total variance in students' English language achievement is accounted for by a linear combination of the seven socio-psychological variables.

As for the extent to which each of the seven independent variables contributed to the prediction, the value of the T-ratio associated with the respective variables, as shown in Table 2, indicate that each of the variables contributed significantly to the prediction of the students' achievement in English language. The values of the standardised regression weights associated with these variables (see Table 2) indicate that variable 6 (self-concept in English language) is the most potent contributor, followed by variable 3 (locus of control), variable 7 (test anxiety), variable 4 (interest in schooling), variable 1 (home language), variable 5 (study habit), and variable 2 (career aspiration) in that order.

The indication that self-concept in English is a significant contributor to the prediction of achievement in the subject seems reasonable considering that an

individual who sees himself as being capable in English language is likely to work hard to attain an acceptable level of performance in the subject. The result corroborates the views of Vispoel (1995) that positive self concept is a mediating variable that facilitates the attainment of desired learning outcomes. This existence of a direct influence of self-concept on academic achievement is also in agreement with Byrne's (1984) self-achievement model which shows that a learner's self concept in a school subject is a primary determinant of academic achievement in the subject.

The result of this study supports the view of Byrne (1984) that academic self-concept has motivational properties which could improve other variables responsible for academic achievement. March (1988) also noted that although academic self-concept has a direct influence on students' achievement, other factors are important. It thus seems that students' self-concept in English language might have also, influenced some other variables that in turn influenced achievement in English language. These other variables, as reported in this study, tend to include students' study habits, locus of control, interest in schooling, home language, career aspiration and test anxiety.

The significant influence of locus of control (measured in this study as the extent to which a student is internally oriented) on achievement in English language is in agreement with the findings of Barling (1982), and Schunk (1991). The peoples' belief about their abilities to exercise personal control of important events in their lives play a major role in motivating the self-regulation of cognitive performance and learning. However, the findings of the present study are contrary to those of Avoseh (1985) and Eso (1988) who found that no significant relationship exists between locus of control and achievement. In spite of this, the investigators feel that the identified linkage between locus of control and English language achievement could be attributed to the fact that the more internally-oriented a student is, the more the student is likely to self-reinforce (Barling, 1982) with greater persistence. These internally-oriented students may have exerted themselves more sufficiently than the externals, and hence recorded better achievement in English language.

Anxiety is thought to produce task-irrelevant responses (e.g. undue concern for passing, thoughts of failing out of school, etc). In testing situations, and such responses tend to interfere with the task responses relevant for good test performance (Wine, 1971). Highly test-anxious students tend to become preoccupied with the task-irrelevant responses and so do not devote attention to the test-taking task (Okpala and Onocha, 1988). This view corroborates with the opinion of Liebet and Morris (1967) that when one worries about the self in relation to examination or test task, one is dividing one's attention between self-relevance and task-relevance. The self-irrelevance or task-relevance response is positively associated with cognitive interference (Swanson and Howell, 1996) which inhibits achievements. In this regard, the significant contribution of test anxiety to the prediction of English language achievement could be explained.

Interest in schooling was found to be a significant predictor of achievement in English language. In Nigerian secondary schools, English language is the medium

of instruction during most lessons and the official language of communication between students and teachers. Students' textual materials in most subjects are also written in English. Secondary school curricula therefore tend to emphasise the development of effective language skills in English. It could thus be said that English language is such an integral part of the school activities that a learner's interest in schooling and interest in English language are likely to be positively related. Perhaps, such a positive relationship accounted for the result that interest in schooling contributed significantly to the prediction of achievement in English language. This, however, needs to be investigated further.

Home language (language most often spoken at home) also made a significant contribution to the prediction of English language achievement. In general, the language habit a child acquires and the function of the language in the child's experiences sharpen his intellect, particularly the development of reasoning and conceptual learning (Onocha and Okpala, 1987). Secondary school students who internalise the language of their immediate environment (home language), where the home language is not the language of instruction, would perceive a bigger barrier between the home and the learning activities of the school. Such students are thus likely to experience more difficulties in the acquisition of verbal techniques adequate for effective English language learning during English language lessons and while reading textual materials in most school subjects including English language. In this regard, the extent to which a student uses English at home could significantly predict his or her achievement in the subject.

Study habits made a significant contribution to the prediction of achievement in English language. This finding corroborates the findings of Okpala and Onocha (1998) that study habits correlate positively with academic self-concept and academic performance. The studies of Abe (1995) and Onafowokan and Okpala (1998) also indicate that a student's study habit exert both direct and indirect effect on academic performance in social studies and integrated science respectively. If an English language student exhibits negative study habits (e.g. lacks concentration, feels bored, tired and sleepy while studying English language, spends little time on the subject and does not map out immediate goals to attain while studying the subject), it is likely that the student may lack the impetus to engage adequately in productive English language learning activities during allocated school time and during his personal study periods. A student with such negative study habits learns very little of what he is supposed to learn (Okpala and Onocha, 1988).

The reported significant influence of career aspiration on English language achievement of students is explicable. A closer examination of the available data reveals that students who aspire to non-science careers (e.g. law) tend to perform better than their counterparts who aspire to science-related career (e.g. engineering and computer science). The result corroborates the study findings of Onocha and Okpala (1986) and Giwa (1998) that students' career aspiration is related to their achievement in science subjects, such that students who aspire to science-related careers achieve more in science than those who aspire to non-science careers. The

result of this study also shows positive influence of career aspiration on achievement but with respect to English language. Specifically, the present study shows that students who aspire to non-science related careers perform better in English language. It thus seems that in general, secondary school students in Nigeria perceive the link between their future careers and performance in school subjects (e.g. English language) and thus provide differential efforts (that tend to be in consonance with their respective perception in studying the respective subjects).

Conclusion

The results reported in this study underscore the need for English language educators and guidance counsellors to use the seven socio-psychological variables (home language, locus of control, study habits, career aspiration, interest in schooling, self-concept and test anxiety) as a predictor set in studying English language achievement among senior secondary school students. Secondary school principals, parents, guidance counsellors, and practising English language teachers who are interested in solving the problem of underachievement in English language should also encourage the development of the following qualities: interest in schooling, good study habits, good command in English language, self-reinforcing tendency and confidence in testing/examination situations in their students who aspire to science and non-science related careers.

References

- Abe, C.V. (1995). *A causal model of some socio-psychological variables as determinants for achievement in secondary school social studies*. Unpublished Ph.D Thesis, University of Ibadan.
- Adepoju, A.A. (1999). *Relative effectiveness of two approaches based on mastery learning strategy on students' achievement in English grammatical structures*. Unpublished Ph.D Thesis, University of Ibadan.
- Avoseh, O. (1985). The influence of sociological and psychological factors in academic performance of secondary school beginners. *Journal of Educational leadership*, 1,2: 11-19.
- Ayodele, S.O. (1988). *The Problem of language for Educating Nigerian learners*. Lecture Series, No. 4, Faculty of Education, University of Ibadan.
- Barling, J. (1981) Self-determined performance standards and reinforcement effects on children's academic performance: A test of social learning theory. *Cognitive Therapeutic Research*, 41: 409-418.
- Byrne, B.M. (1984). The general/academic self-concept nomological network: A review of construct validation research. *Review of Educational Research*, 54: 427-456.

- Eso, O.T. (1999). *Assessment procedure and student locus of control as determinants of achievement in Integrated Science*. Unpublished Ph.D. Thesis, University of Ibadan.
- Giwa, O.Y. (1998). *Cognitive and social variables as correlates of hearing impaired students' learning outcomes in Integrated Science*. Unpublished Ph.D. Thesis, University of Ibadan.
- Libert, R.M. and Morris, L.W. (1967). Cognitive and emotional components of tests anxiety: A distinction and some initiality. *Psychological Reports*, 20: 975-978.
- Marsh, H.W. (1988). Causal effects of academic self-concept on academic achievement: A reanalysis of Newman. *Journal of Experimental Education*, 56: 100-104.
- Okedara, C.A. (1997). *The English language Communication and Development in Nigeria*. Inaugural lecture, University of Ibadan.
- Okpala, N.P. and Onocha, C.O. (1988). Student factors as correlates of achievement in Physics. *Physics Education*, 6: 361-365.
- Okwilagwe, O.A. (1998). *A New Approach to Reading Comprehension and summary for Schools and Colleges*. Stirling-Horden Pub. (Nig.) Ltd.
- Onafowokan, O.B. and Okpala, N.P. (1998). Development and testing of a model for communicating science at the Junior Secondary level. *STAN Conference Proceedings*, 212-218.
- Onocha, C.O. and Okpala, N.P. (1987). Family and school environmental correlates of Integrated Science achievement. *American Journal of Psychology*, 121, 3: 281-286.
- Schunk, D.H. (1991). Self-efficacy and academic motivation. *Educational Psychology*, 26: 207-213.
- Swanson, S. and Howell, C. (1991). Test anxiety in adolescents with learning disabilities and behaviour disorders. *Exceptional children*, 62(5): 389-397.
- Vispoel, W.F. (1995). Self-concept in artistic domain: An extension of the Shavelson, Hubner and Stanton (1976) model. *Journal of Educational Psychology*, 87: 134-153.
- Wine, J. (1971). Test anxiety and the direction of attention. *Psychological Bulletin*, 76: 92-104.