

TEACHER FACTORS AS PREDICTORS OF STUDENTS' ACADEMIC ACHIEVEMENT IN ECONOMICS IN OGUN STATE, NIGERIA

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Abstract

Economics is one of the social science subjects in Nigeria. Hence, students are expected to pass the subject for them to be admitted into the faculties of the Social Sciences and Administration in Nigerian universities. However, the achievement of secondary students in Economics has not been encouraging, especially in Ogun State, Nigeria. Therefore, this study examined teacher-related factors as predictors of students' academic achievement in Economics in Ogun State, Nigeria. The study adopted a cross sectional survey design. Six hundred students and forty teachers were selected from two local government areas in Ogun State using simple random sampling and proportionate sampling techniques. The Economics students responded to Students' Perceived Teacher Factors Questionnaire; ($r=0.81$) and Economics Achievement Test, ($r=0.84$) while Economics teachers responded to teachers' demographic bio-data. Two research hypotheses were tested and analysed using multiple regression analysis. Result revealed that teachers' qualification (0.14), competence (0.92) and experience (0.14) independently and jointly contributed significantly to students' academic achievement in Economics ($R^2 = 0.77$, $F = 46.78$, $p < 0.05$). Based on the findings, it was recommended that government and other education service providers may improve students' academic achievement in Economics by employing teachers with high qualification, competence and experience.

Keywords: Teachers Qualification, Teachers Competence, Teacher Experience, Academic Achievement in Economics.

INTRODUCTION

The place of Economics as a subject in the secondary school education curriculum cannot be underestimated. This is because Economics teaches the students about how people earn their living and make a choice between alternatives to satisfy their wants. It also focuses on the study of firms and governments whose activities are geared towards the production of goods and services for the satisfaction of human wants. According to Adeyemo (2013) and Salako (2011) Economic prepares individuals to contribute positively to rapid economic development of the nation

and spend wisely so that the little resources at their disposal can be used to maximize their satisfaction.

However, in spite of the important roles of Economics as a subject in our day to day activities, students' academic achievement in Economics has not been encouraging over the years as shown in Table 1.

Table 1: Six Year Analysis of WAEC (SSCE) Economics Results in Ogun State Between

2010-2015

Year	Number of Candidate sat for the exam	Number Passed at Credit level (A1-C6)	Percentage Passed at Credit Level (%)	Number Failed	Percentage Failed (%)
2010	24581	4153	16.89	20428	83.11
2011	40265	8890	22.08	31375	77.92
2012	45309	10768	23.77	34541	76.23
2013	42710	13691	32.06	29019	67.94
2014	72624	30530	42.04	42094	57.96
2015	83548	42985	51.44	40563	48.56

Source: *Ogun State Ministry of Education, Department of Planning, Research and Statistics (2015)*

Results in Table 1 show that the percentage of students that have credit in Economics between the year 2010 to 2012 are below 25%. Little progress was made in year 2013 and 2014, but still below 45% and slightly better improvement in 2015 with just a little bit above 50%. However, this improvement is not enough to say that students' academic achievement in Economics has improved, as over 40% of the students who sat for the examination performed poorly..

The issue of poor academic achievement of students in Economics has been of much concern to the government, parents, teachers and even students themselves. For many years, there has been a consistent trend of poor academic achievement in Economics in West Africa Senior Secondary Certificate Examinations in Ogun State, Nigeria. This situation is likely to be caused by many factors such as socio-economic background, family support, intellectual aptitude of students, students' attitude, personality of students, students' self-confidence, inadequate instructional materials, teachers' qualification, competence, age, experience and teachers' attitude. Based on the aforementioned reasons, this study examines teacher factors in the area of (competence, qualification, and experience) as determinants of students' academic achievement in Economics in the Senior Secondary School Examination.

Different factors have been attributed to students' low academic achievement in Economics. For example, Salako (2011) attributed it to students' bad impression about the Economics, Wright, Horn & Sanders (2007), Afe (2011), Etsy (2005), Kimberly (2009), and Adeyemo (2013) attributed students' low performance in Economics examination to some teacher factors such as age,

competence, gender, mastery of the subject contents, experience, teaching methods and qualification. This is not surprising because teachers are in charge of the transmission of knowledge, values and skills in the learning process. Thus, Adeyemo (2013) concurred that if the teacher is ineffective, students under the teacher's tutelage will make inadequate progress academically. He therefore concluded that effective schools must have qualified teachers who are skillful and knowledgeable to enhance effective teaching and learning process.

However, ample teacher-related factors have been associated with students' academic achievement in Economics. These factors include teachers' qualification (Huang & Moon 2012; Goldhaber & Brewer, 2010), competence (Adeyemo, 2013), experience (Ravkin, 2005). According to Adeyemo (2013), teacher's competence is the ability of the teacher to help guide and counsel his or her students to achieve high grades. It is the right way of conveying content, process, methods, application and skills to students. Olaleye (2011) submitted that competence is usually associated with highly professional performance and there is a direct link in the field of education between a teacher's professional competence and pupils' academic achievement. This implies that ability to teach effectively depends largely on the teachers' knowledge of the subject matter. Thus, Adediwura and Bada (2007) stated that nobody could teach what he/she does not understand or know. They concluded that teachers must thoroughly understand the contents of what they teach. It is established beyond doubt that there lies a strong relationship between teacher competence and effective teaching. However, this could not reflect in the achievement of students in Economics.

Teachers' academic qualification is another important factor that may influence students' academic achievement in Economics in Nigeria. Teachers' academic qualification is the highest certificate acquired by a professional teacher. Researchers have noted that teachers' qualification play strong role in the performance of students at school. For example, Adebayo (2012) found that students taught by teachers with higher qualifications performed better in Physics than those taught by teachers with lower qualification. Huang & Moon (2012) also reported that teacher's qualification accounted for approximately 40 to 60 percent of the variance in average of students' achievement in assessment. However, the impact of teachers' qualification on students' academic achievement in Economics especially in Ogun State, Nigeria is not clear.

Gibbons, Kimmel and O'shea (2007) posited that the teaching of Economics requires qualified teachers that are well experienced, if not, students would lack the understanding of the subject as the unqualified teachers would avoid some topics that may appear difficult for them to teach but are very important for students to learn. This can affect the performance and interest of students in Economics. Adeyemi (2011) also agreed that teaching experience is a critical element in students' learning outcomes in secondary schools. He concluded that schools which employ teachers with five years or more teaching experience achieved better results than schools having teachers with less than five years of teaching experience. This is because teacher's experience increases every year

especially during the first ten years of teaching. However, a large number of students who enrolled for Economics in the senior school certificate examinations have consistently performed poorly. It is against this background that this study examines teacher-related factors as predictors of students' academic achievement in Economics in Ogun State, Nigeria.

Hypotheses

Ho₁ There is no significant joint influence of competence, qualification, and experience on students' academic achievement in Economics.

Ho₂ There is no significant independent influence of competence, qualification, and experience on students' academic achievement in Economics.

METHOD

Research Design

A survey research design was adopted in this study.

Participants

The target population for this study comprised of all Senior Secondary 2 Economics students and teachers in Ogun State, Nigeria. The choice of students in SS 2 was based on the assumption that the students have completed some contents in SS I Economics curriculum. This was considered important because the achievement test reflected most of the basic topics in Economics.

A multi-stage sampling technique was used to select a total sample of 600 Senior Secondary School 2 Economics students and 40 Economics teachers from Ijebu Ode and Ijebu-North local government areas of Ogun State, Nigeria. In Ogun State, there are twenty Local Government Areas (LGAs) with three senatorial districts. Simple random sampling technique was used to select Ogun East senatorial district which consists of nine local government areas. Two local government areas were later selected from the selected senatorial district using simple random sampling technique. At the third stage, the proportionate sampling technique was used to select a total of 20 senior secondary schools from 33 senior secondary schools in the two LGAs selected from the selected senatorial district in Ogun State, Nigeria. This represented a total of 60 per cent of the entire schools in the selected LGAs. Lastly, simple random sampling technique was employed to select a total of 30 SS 2 Economics students comprising male and female as well as two Economics teachers from each of the participating school. Altogether, a total of two LGAs, 20 schools, 600 Economics students comprising 385 males and 215 females, and 40 Economics teachers comprising 25 males and 15 females were involved in the study.

Instrument

The research instrument contained three sections: A, B, and C. Section A tapped the demographic information of the students and teachers that participated in the study. Information such as School's name, type of school, school's location, age,

gender, (work experience; class taught and highest qualification attained; for teachers alone). Section B contained the Student Perceived Teacher Factor Questionnaires (SPTFQ), while Section C had the Economics Achievement Test (EAT) scale. The two scales were developed by the researchers in 2018 to collect the data.

Students' Perceived Teacher Factors Questionnaire: The SPTFQ instrument was designed by the researchers to collect information on the level of competence of the Economics teachers in each of the participating school. The instrument contained two sections A and B. Section A contained the demographic information of the respondents while section B contained twenty items to elicit information from the respondents. Likert type scale of four options ranging from strongly agree to strongly disagree was used. The response format was numeric and items were arranged on a scale with equal intervals. Sample item includes "My Economics teacher has a good mastery of the subject". The more favourably respondents judged the items, the higher the numerical value.

Economics Achievement Test: The EAT was developed by the researchers and was designed for SS II Economics students. A table of specification was used to generate 100 items for students' Economics tasks. On the table of specifications, many questions were asked under the lower-ordered cognitive skills (i.e. knowledge, comprehension and application) than the upper-cognitive areas. The distribution of items was designed to minimize the level of frustration on the part of the testees. The EAT is a multiple-choice objective test with four options A, B, C and D. The items were subjected to expert opinion of two school teachers with Economics background. Their comments led to the modification of the items in which 30 out of the original 100 items were retained. Each item has one correct option (the key) and three distracters. The correct option attracts 1 mark and the total mark obtainable is 30. Sample item of this measure was "When total utility is constant, it means marginal utility is ___? (a) increasing (b) zero (c) decreasing (d) one.

Validity and Reliability of the Instruments

The initial drafts of the instruments were subjected to content validity by three experts in test construction for vetting. Based on the suggestions and comments of these experts, the necessary corrections were made. This necessitated the restructuring of some of the items, addition of new items and the removal of ambiguities associated with the items. The instruments were then administered to a sample of 30 SS 2 Economics students that were not part of the study.

The reliability of the instruments was determined using test re-test reliability method and after an interval of three weeks, the same instruments were administered to the same selected group in each school. Kuder Richardson formula 20 was used to estimate the EAT internal consistency. The reliability coefficient of the test was estimated as 0.84 while Cronbach alpha reliability of the instrument

was established as $SPTFQ = 0.81$. This implies that the construct, content and criterion related validities were found to be adequate.

Procedure

The necessary data for this study were obtained from Economics students and teachers of the selected schools in the selected local government areas that participated in the study. Before going to the field, the researchers trained two field research assistants on how to administer the instruments in order to collect the required data. The training lasted for two days. The researchers and the assistants visited the selected schools to be used, and a letter of introduction was given to the principal requesting his/her permission to administer the questionnaire to the students. After granting the permission, the administrators then distributed the instruments to the randomly selected SSII Economics students in the selected schools in the participating local government areas and collected them on completion. The bio-data of the Economics teachers in the selected schools were also distributed to the teachers and were collected immediately after completion. After collection of data from the students, the questionnaire and achievement tests were merged and any questionnaire responses without corresponding responses to achievement tests were discarded. The idea was to have complete sets of the students' related instruments.

Six hundred copies of the questionnaire and Economics achievement test were distributed to the selected students in the 20 schools in the two LGAs and a total of 600 (100%) questionnaire and Economics achievement test were returned, among which 13 (2.2%) badly filled ones were discarded. A total of 587 (97.8%) questionnaire and Economics achievement test, fully responded to, were utilised and data collection lasted for 15 working days.

Data Analysis

The data collected were analyzed using descriptive statistics of frequency counts and simple percentages to interpret the demographic data and items on teachers' competence. Hypotheses were analyzed using multiple regression analysis at 0.05 alpha level of significance.

RESULTS

Table 2: Description of the items on Teachers' Competence

SN	Items	SA	%	A	%	D	%	SD	%	MEAN	SD
1	Has the mastery of the subject	194	33.5	216	37.3	51	8.8	118	20.4	2.84	1.102
2	Knows how to explain while teaching	188	32.5	223	38.5	61	10.5	107	18.5	2.85	1.072
3	Uses some of the exercises as his examples	48	8.3	127	21.9	270	46.6	134	23.1	2.15	.872
4	Marks Economics assignment regularly and punctually	57	9.8	46	7.9	313	54.1	163	28.2	1.99	.869
5	Is able to answer questions from the students	44	7.6	42	7.3	262	45.3	231	39.9	1.83	.864
6	Makes use of instructional materials always	208	35.9	204	35.2	124	21.4	43	7.4	3.00	.934
7	Makes the class interesting	71	12.3	194	33.5	164	28.3	150	25.9	2.32	.992
8	Uses extra time to attend to students' personal problem in Economics	96	16.6	227	39.2	166	28.7	90	15.5	2.57	.943
9	Has good control of class	176	30.4	216	37.3	94	16.2	93	16.1	2.82	1.038
10	Studies the students for appropriate method to use	145	25.0	218	37.7	104	18.0	112	19.3	2.68	1.052
11	Supervises class work given to students	87	15.0	233	40.2	107	18.5	152	26.3	2.44	1.036
12	Does correction on every given assignment	30	5.2	88	15.2	233	40.2	228	39.4	1.86	.857
13	Marks all the exercises given	42	7.3	245	42.3	212	36.6	80	13.8	2.43	.817
14	Always interested in taking our students for Economics quiz competition	75	13.0	301	52.0	152	26.3	51	8.8	2.69	.806

15	Focuses lesson on specific concept	121	20.9	266	45.9	140	24.2	52	9.0	2.79	.875
16	Does not allow students' to concentrate on other subject in Economics class	131	22.6	239	41.3	142	24.5	67	11.6	2.75	.934
17	Uses extra time to attend to students' personal problem in Economics	50	8.6	235	40.6	186	32.1	108	18.7	2.39	.886
18	Has fluency that attracts me to the subject	157	27.1	208	35.9	120	20.7	94	16.2	2.74	1.030
19	Makes students to concentrate in class while teaching	201	34.7	178	30.7	86	14.9	114	19.7	2.80	1.117
20	Does not give class work	225	38.9	196	33.9	103	17.8	55	9.5	3.02	.973

Table 2 shows that at the bench mark of 2.5 mean, 12 items (1, 2, 6, 8, 9, 10, 14, 15, 16, 18, 19 and 20) met the bench mark. That is to say that majority of the students agreed on these items as the true competence of the teachers.

Regression equations: $A = b_0 + qX_1 + eX_2 + cX_3$

Where;

A = achievement

b_0 = constant

q = coefficient of qualification

e = coefficient of experience

c = coefficient of competence

X_1 = qualification

X_2 = experience

X_3 = competence

Test of hypotheses 1 and 2

Table 3: Summary of Multiple Regressions Showing the Joint and Independent Prediction of Qualification, Experience and Competence on Students' Academic Achievement in Economics

Variables	B	t	R	R ²	df	F
Qualification	.14	1.53*	.89	.78	2, 641	46.78*
Experience	.14	1.45*				
Competence	.92	11.29*				

Note: ** $p < .01$. * $p < .05$. N = 640.

Table 3 shows the joint and independent values of the parameters of the regression analysis of the variables (Academic qualification, work experience and competence) on students' academic achievement in Economics in Ogun State. The results of the analysis showed that the predictor variables are explainable on Economics achievement in secondary school in Ogun State. The predictor variables taken against the criterion variable yielded a coefficient of Multiple Correlations R-value of (0.89) and adjusted R² (0.78) which indicates that 78% of the variance in academic achievement in Economics is explained by qualification, experience and competence of teachers. The F-value (46.78) which is significant at 0.05 ($P < 0.05$), signifies that the joint relationship is significant. Therefore, there is significant joint relationship of qualification, experience of teachers and competence on students' academic achievement in Economics.

Table 3 also reveals the beta values for qualification as (0.14), experience as (0.14) and teacher's competence as (0.92) on students' academic achievement in Economics. This implies that teacher's competence predicts students' academic achievement in Economics most, followed by experience and qualification as the

least. All have positive effect on students' academic achievement in Economics and only teacher's competence has significant independent effect.

DISCUSSION

Hypothesis one revealed that there was significant joint effect of qualification, experience and competence on students' academic achievement in Economics. This finding corroborated Luster and McAddo (2004) study. They found that difference in teacher-related factors are responsible for students' academic performance. The present study also supports the findings of Salako (2011) who attributed students' performance to different factors. Also, the present study is in line with studies by Wright, Horn & Sanders (2007), Afe (2011), Etsy (2005), Kimberly (2009), and Adeyemo (2013). They attributed students' low performance in Economics examination to teachers that may lack certain requirement such as the ones used in this study. The reason for the present study might be that teachers used in this study possessed the variables (qualification, experience and competence) used in the study which might have enhance a greater achievement of students in Economics.

Hypothesis two revealed that teacher's qualification, experience and competence made positive independent contribution to students' academic achievement in Economics. Reports from this findings shows that cognitive factor appear as the most potent contributor to the academic achievement of students in Economics. This means that cognitive factors of the teacher's variables are most important than any other factors in predicting students' academic achievement in Economics. This finding agrees with the findings of Adeyemi (2011) and Adediwura & Bada (2007). Adeyemi (2011) in a study discovered that competence has significant impact on students' academic achievement in school subjects as it enables the teacher to employ various and appropriate teaching methods that would help students to perform well in their examinations. Adediwura & Bada (2007), revealed that there is a strong relationship between teacher competence and effective teaching.

CONCLUSION

This paper has revealed that teacher's competence predicts academic achievement most, followed by experience and qualification the least. This is due to the fact that these teachers' variables are able to harmonize the minds and emotions of their students in class, leading to better academic achievement. Having carried out a careful examination of available literatures and the analysis of data, it was concluded that government should improve the quality of teachers by organizing workshops/seminars for them to learn new strategies that the subject demands. Based on the results' findings it is recommended that government and other education service providers may improve students' achievement in Economics by employing teachers with high qualification, competence and experience.

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