

Influence of Teachers' Demographics on Academic Achievement of Students in Economics

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Abstract

This study sought to determine the influence of teachers' demographics on academic achievement of secondary school students' in Economics in Calabar Metropolis of Cross River State; that is Calabar Municipality and Calabar South Local Government Areas. Two research questions and two hypotheses were formulated to guide the study. The research design adopted for this study was the ex-post facto design. Simple random and purposive sampling techniques were used to recruit a total of 92 Economics teachers and 2,940 Economics students as the respondents. Two sets of instruments were used for data collection: Teacher Variables Questionnaire (TVQ) and Economics Achievement Test (EAT). Independent t-test analysis and One-way analysis of variance was carried out on data collected at .05 significant level. The results from the analysis of the data indicated that gender of teachers has no significant influence on academic achievement of students" in Economics and age of teachers does not significantly influence "students' academic achievement. The study recommended that employers of labour and school proprietors should not rely on the gender and age of the teachers before employing them.

Keywords: Teachers, demographics, Age, Gender, Academic, achievement, Students

Introduction

Teaching in Nigeria is tending towards becoming a female profession. There has been significantly noticeable difference in the proportion of males to females working as teachers in the Nigerian school system. Okoro (2012) observed that in Uyo Metropolis, male teachers constitute about 13.3% while female teachers constitute about 86.87%. This assertion may not be different in other urban areas and rural areas as well in the country. Dee (2006) "investigated the effect of teachers' gender using National Education Longitudinal Survey (NELS) data on 8th grades from the US and found that same-gender teachers had a positive effect on their

students; that is girls do better in school when taught by women and boys do better when taught by men. Dee also found that the effect of teacher gender varies depending on the subject; for girls the benefits of being assigned to a female teacher are concentrated on arts, history, not in sciences and mathematics. This finding supports the work of Michaelowa (2001), using data from Francophone sub-Saharan Africa, which similarly finds support for the same-gender effect.”

Smith (2004) “also observed that the diminishing presence of male teachers was a global issue and that the proportion of men within teaching rank was declining significantly. This assertion is in line with Nelson (2003) who found out that in Australia, the proportion of male teachers was only 20.9%. National Education Association (NEA, 2003) also indicated that only nine percent (9%) of American elementary school teachers are men. Men are moving away from teaching profession making it look as if it is only female profession. Yusuf and Adigun (2010) attest that teacher’s gender has an influence on students’ achievement; that students taught by same sex teacher do well in their studies than students taught by opposite sex teacher. Dee (2006), in his research, cited two theories (learning and constructivism) suggesting that students’ academic achievement depends on teacher’s gender. In these theories, “he asserts that teacher’s gender shapes communications between teacher and student while the other says the teacher acts as a gender specific role model regardless of what he or she says or does. He further explained in the theories that students were more engaged, behaved more appropriately and performed at a higher level when taught by one who shared their gender.”

Other studies have also indicated a “strong relationship between gender of the teachers and academic achievement of students (Catholic Education Office, 2002; Education Queens Land 2002). These studies have indicated that boys are disadvantaged in schools due to the paucity of male teachers.” West (2004) also maintained that male teachers are few in the school system and that is not favourable to boys. He suggested that there should be an increase in the “number of male teachers in both primary and secondary schools in order to cushion the effects of teacher gender imbalance in the schools. Girls have better educational outcomes when taught by women and boys are better off when taught by men (Dee 2006).”

Some researchers have a contrary opinion on “same gender teacher and academic achievement of students. Holmulund and Sund (2005) in their research found no strong correlation that teachers’ gender have a positive causal impact on students achievement. Krieg (2005) also in his study found no evidence to support that the interaction of student and teacher gender have a positive correlation on the student’s academic achievement. He further explained that regardless of student’s gender, students taught by women perform better than those taught by men. In accordance with Krieg, findings from the Southern and Eastern African Consortium for Monitoring Education Quality (SACMEQ) and a recent UNESCO Education for All report note that female teachers have a positive effect on both boys’ and girls’ achievement in schools (UNESCO, 2015).”

Similarly, a study from Pakistan (UNESCO, 2003) revealed that students in female teachers' classrooms tend to perform better," for the female teacher is enduring and tolerable. Some findings still contradict the study. Warwick and Horoona (1994) "studied 1000 teachers, 300 school supervisors and 11,000 4th and 5th grade students in Pakistan. They found out that students of male teachers scored significantly higher than the students of female teachers. However, Driessen (2007) found no relationship between teachers' gender and student's academic outcomes. The researcher argued that the evidence that increasing presence of female teachers will improve girls' learning outcomes is at best" limited. The "teacher is the most costly educational input in educational system. A teacher's role is central in student's academic achievement. Of all variables under the control of the school, teaching has the most demonstrable impact upon student's academic achievement (Hopkins 1997). This position is supported by Psacharopoulos and Woodhall (1985) who singled out the teacher as being the most important factor that if varied, can influence school output.

Also teachers' variable such as age is to be ascertained whether it influences academic achievement of secondary school students. "According to Rivkin, Hanushek and Kain (2005), teachers' age is not significantly related to students' academic achievement. This finding is in line with the work of Kimani, Kara and Njagi (2013) who, in a study titled teacher factors influencing students' academic achievement in secondary schools in Nyandarua County, Kenya, found out that teachers' age was not significantly related to students' academic achievement."

Some studies have also found out that "age is a factor that determines academic achievement of students in their various school subjects (Fullan 1992). Some other stated that though in most cases age has very little influence on the teachers' performance as it is just a number, what matters is the competence, commitment and responsibility of the teacher. It has however been noted that younger teachers perform better than old teachers. In an interview of the principal of a school, a student noted that age seems not to play a major role in the manner in which a teacher teaches. Some younger teachers are keen to help students to master skills in solving problems whereas some do not care as they are always in a hurry to deliver their lessons and go out of the classroom.

One would expect teachers' age to influence students' achievement due to maturity. Thus, as teachers advance in age, they should have better mastery of content, better utilization of educational resources, motivational techniques and effective content delivery. This view is consistent with Hanushek's (1996) report, that teachers' age was consistently related to student's achievement than their educational quality. Fullan (1992) confirmed the hypothesis of significant relationship of age and students achievement. Rivkin, Hanushek and Kain (2005) found out that teachers' age was significantly related to students' achievement. Darling-Hammond (1998), in his study, revealed a negative relationship between teacher's age and students' academic achievement. Teachers' advancing in age, that is getting to mandatory retirement age are bound to experience burnout easily. Younger teachers in this

respect may be more up-to-date with curriculum and examination requirement, and probably make these their main focus. On the other hand, young inexperienced teachers may be easily overwhelmed by work and in this case learning achievements may be minimal and the contrary may be for the older teachers. Rapport is very important in learning outcomes, an aspect that is associated more with younger teachers whereas it may be more difficult for an older teacher to establish rapport with his or her class. Furthermore in most cases younger teachers often find teaching interesting and become more enthusiastic and have more up-to-date knowledge on their subject than older teachers. However, the younger teachers may not be taken seriously by students because of their age and therefore may be a disadvantage to the students. Kimani et al (2013), in their study in Nyandaurua, found “no significant relationship between age of a teacher and academic achievement of students. Domike (2002) in Ntino (2004) reporting the work of Anidon and Kean (1968), Butts and Raun (1967) also noted that age “has no significant influence on students achievement.

Statement of the problem

Demographic variables like gender and age of teachers are important in the academic achievement of the students that they teach. The evidence that most of the studies reviewed were carried out in foreign countries with varied methodology is a major problem that justifies this study. Another problem that justifies this study lies in the fact that some of the studies carried out in Nigerian schools to establish the influence of these teacher's variables on the academic achievements of students were in different locality not in the present study area and majority of the studies carried out were in Science subjects, English language, Mathematics and Social studies. Furthermore, most of these studies were in junior secondary schools. The present investigation therefore was to establish whether these teacher's variables (gender and age) would influence “the academic achievement of Senior Secondary School students in Economics especially when the sample is drawn from Calabar Metropolis in Cross River State, Nigeria. Thus the finding of this present study will provide both empirical and theoretical basis to fill the existing gaps and add to the existing literature in the study area to solve the problem of paucity in data in the study area.

Research questions

In order to carry out the investigation, the following research questions were formulated to guide the direction of the study:

- i. How does teachers' gender influence the “academic achievement of secondary school students in Economics?
- ii. What is the influence of teachers' age on “academic achievement of secondary school students” in Economics?

Hypotheses

The following hypotheses were formulated to guide the study:

Ho1: Teacher's gender “has no significant influence on the academic achievement of secondary school students.

Ho2: The age of teachers does “not significantly influence the academic achievement” of students.

Research methodology

The study adopted ex-post facto design. The research design” was adopted because the manifestation of the independent variable is already there and the researcher is studying, in retrospect, the possible cause of the observed phenomenon. The population of the study was one hundred and four (104) Economics teachers and three thousand, three hundred and ten (3,310) SS2 Economics students in ninety two (92) secondary schools in Calabar Metropolis which is Calabar Municipality and Calabar South Local Government Areas. In a school that has more than one teacher teaching Economics in SS2, the simple random sampling approach of hat and draw method was used to select one teacher only for the school, therefore one teacher from each school was selected. Hence 92 teachers selected were matched with the students they teach which resulted to 2940 Economics students. The 92 Economics teachers comprised of forty nine (49) male and forty three (43) females teachers respectively. The selection of 92 teachers and 2,940 students were conducted using simple random and purposive sampling method.

In order to acquire relevant data for “this study, two (2) sets of instruments were used for data collection. The instruments were: Teacher Variables Questionnaire (TVQ) and Economics Achievement Test (EAT). The first instrument, TVQ, was designed to obtain information from the teachers.” The questionnaire was made up of two (2) sections; section A was designed to obtain information on demographic data of teachers such as sex, age, marital status, teachers’ educational qualifications and teaching experience. Section B was developed to elicit information on teachers’ personal experience and it uses a four Point modified Likert- type scale of questionnaire. The options were Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD).

The “second instrument was a 50-item multiple-choice Economics achievement test” to assess the students’ academic achievement in Economics. The instrument was developed by the researcher. The respondents were expected to choose the correct option from the given options lettered A – D. The test covers the major content areas in Economics in senior secondary one (SS1) and senior secondary two (SS2). A table of specification (test blue- print) of 50 test items was prepared. The face and content validity of the instruments was determined by research experts, some items were scrutinized, ambiguous and double barreled questions were removed. The reliability of the instruments was determined using Cronbach alpha reliability method and Kudre-Richardson 20 for TVQ and EAT respectively. The TVQ was given to 30 teachers and EAT administered to 50 students in another local government area not included in the study area. The reliability estimates of the instruments were 0.709 and 0.829 for both instruments respectively. This was considered high enough to justify the use of the instruments for the study. Data collection was done in the sampled schools by the researcher and data collected were analyzed using independent t-test analysis and one-way analysis of variance.

Presentation of results

Ho1: There is no significant influence of teacher's gender on the academic achievement of students.

To test this hypothesis, the academic achievement of students in Economics taught by male and female teachers were compared using the independent t-test analysis as reported in table 1. From table 1, the academic achievement of students under male and female teachers in Economics do not significantly differ ($t = -.764$; $p = .447$). Hence the null hypothesis that there is no significant influence of teacher's gender on the academic achievement of students in Economics is upheld at the 0.05 level of significance.

Table 1: Independent t-test analysis of students' academic achievement under male and female Economics teachers

Gender of teachers	N	\bar{x}	SD	t	p
Male	49	30.00	3.98		
Female	43	30.70	4.90	-.764	.447
Total	92	30.35	4.42		

Ho2: The age of teachers does not significantly influence the academic achievement of students.

To test this hypothesis, the one-way analysis of variance was employed to compare the academic achievement of students in Economics taught by teachers who are below 30 years, between 30 and 40 years, and those who are 41 years of age and above. The result is shown on Table 2. The information on table 2 shows that the age of teachers does not significantly influence the academic achievement of the students ($F = .994$; $P = .374$). Hence the null hypothesis that age of teachers does not significantly influence students' academic achievement in Economics is upheld at the 0.05 level of significance.

Table 2: Summary data and one-way analysis of variance (ANOVA) of the influence of teachers' age on students' academic achievement in Economics

Age of teacher	N	\bar{x}	SD		
Below 30 years	30	29.48	3.00		
30-40 years	23	31.17	5.21		
41 years and above	39	30.48	4.82		
Total	92	30.33	4.42		
Source of variance	SS	df	MS	F	p
Between group	38.866	2	19.433	.994	.374
Within groups	1740.525	89	19.556		
Total	1779.392	91			

Discussion of findings

The hypothesis one tested if there was any significant influence of teachers' gender on academic achievement of students. The result showed that gender has no significant influence on academic achievement of students in Economics. Thus the null hypothesis was retained. The finding is in support of Krieg (2005) who reported that the gender of a teacher has no positive correlation with students' performance academically. Also in line with the present finding, Holmulund and Sund (2005) affirmed that teachers' gender has no positive correlation and impact on students' academic achievement. However, this finding contradicts the UNESCO's (2003) findings from the Southern and Eastern African Consortium for Monitoring Education Quality (SACMEQ) that noted that female teachers had a positive effect on both boys' and girls' achievements. The present finding disagrees also with Warwick and Horoona (1994) who found that students of male teachers perform significantly better than the students of female teachers. The finding also disagrees with Dee (2006), who reported that girls have better educational outcomes when taught by women and boys are better off when taught by men. Similarly, Sadowski (2010) found out that learning from a teacher of opposite sex had a detrimental effect on student's academic progress and their engagement in school. He maintained that teacher gender does influence the academic achievement of students. Studies by Michaelowa (2001), Smith (2004), Catholic Education Office (2002) and Education Queens Land (2002) tended to also contradict the present findings. A possible explanation is that most of the studies that indicated relationship between gender of teacher and students' performance are foreign. So, the issue of cultural differences may account for the findings of this study. The implication of this study is that sex of a teacher did not exercise a major impact on students' academic achievement, rather there may be other extraneous variables which exert influence on students' academic achievement.

The hypothesis two sought to find out if there is any significant influence of teachers' age on academic achievement of students in Economics. The result showed that age of teachers does not significantly influence students' academic achievement. Thus, the null hypothesis was upheld. The finding of this study is in agreement with that of Kimani, Kara and Njagi (2013). In their study on teacher factors influencing academic achievement in secondary schools, they found no significant relationship between teachers' age and academic achievement of students. However, this finding contrasts with Hanushek (1996) who found out in his study that teachers' age was consistently related to students' academic achievements. Again this finding is in contrast with Fullan (1992) as well as Rivkin, Hanushek and Kain (2005) who found a significant relationship of teachers' age and students' academic achievement. The implication of this finding is that teachers' age does not significantly relate to academic achievement of students in Economics. This implies that students' achievement is not dependent on teacher's age.

Conclusion

This study was undertaken to determine the influence of teachers' demographics (age and gender) on academic achievement of secondary school students in Economics in

Calabar Metropolis of Cross River State. Based on the findings of this study, it was concluded that gender and age do not significantly influence the academic achievement of students in Economics. Therefore, higher students' academic achievement does not depend on gender or age of the teacher who teaches the subject, as there might be other moderator variables that can influence student's achievement.

Recommendations

Based on the findings of this study, the following recommendations were made:

- i. Employers of labour and proprietors should not rely on the gender and age of the teacher while employing them.
- ii. Parents and school administrators should not put blames on teachers about students' poor academic achievement based on teacher's age and gender.
- iii. Teachers should not be solely blamed for low academic achievement of students because there might be other moderator variables that can cause low achievement of students.

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