

TEACHER DEMOGRAPHIC VARIABLES AND STUDENTS'S ACADEMIC
ACHIEVEMENT IN SECONDARY SCHOOLS HOME ECONOMICS IN CALABAR
EDUCATIONAL ZONE OF CROSS RIVER STATE

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ABSTRACT: *This study investigated the influence of teacher demographic variables on secondary School students' academic achievement in Home Economics in Calabar educational zone of Cross River State. Hypotheses were postulated to guide the study. Some relevant literatures were reviewed based on the two variables of the study. The study adopted a survey design. Simple random sampling technique was utilized to draw four hundred and twenty (420) respondents comprising of twenty (20) Home Economics teachers and four hundred (400) JSS III Students from the population. Two sets of instruments were used to elicit information from the sample. These instruments include: "Teacher demographic variables questionnaire" (T.D.V.Q) and "Home Economics Achievement Test" (HEAT). Kuder Richardson formular – 21 was used to establish the reliability coefficient of HEAT with an estimate of 0.77. T-Test was used in the data analysis. The results of data analysis showed that the two hypotheses were significant at 0.05 probability level. This means that educational qualifications and experience of the teacher influence significantly the students' academic achievement in Home Economics in the study area. Based on these findings some recommendations were made.*

KEYWORDS: Teacher Demographic Variables, Students, Academic Achievement, Secondary Schools, Home Economics , Calabar Educational Zone , Cross River State

INTRODUCTION

The most innovative contributions as contained in the national policy on education (2004) to the development and enhancement of self reliance economy is in the area of secondary education. The policy presents a two tiers secondary education lasting for a period of six years. A child is required to spend the first three years in junior Secondary School (JSS), and another three years in the senior Secondary School (SSS) if he/she performs well in both continuous Assessment (C.A) and terminal examinations. However, the junior Secondary School education is pre-vocational and academic. One of the pre- vocational subjects prosed for Junior Secondary School is Home economics

Teachers are the hub of the educational system in the world and Nigeria in particular. Teachers therefore are in the forefront of the battle for national development. The national policy on Education encapsulates this as “Teachers education shall continue to be given major emphasis in all educational planning and development”. Also the policy stipulates the purpose of teacher education is to produce highly motivated, conscientious and efficient classroom teachers for all levels of our educational system. It is on this premise that Okohe (2003) states that the seven cardinal goals of education are emotional, intellectual, physical, moral, aesthetic, vocational and zonal. It is true to mention that the key to the attainment of these goals has been entrusted to the teachers.

The school is a place for learning and acquisition of knowledge, wisdom, and cultural values that places the individual at a vantage point of helping himself and being useful to his society. Academic performance of students is a yardstick for education itself. It is the indices for testing educational quality and thus is a challenge to schools to aspire to mentain a high level performance in internal and mostly external examinations.

Records have shown over the past decade that Secondary School students’ academic achievement in Home Economics, unquestionably a self reliance school subject has consistently deteriorated. Trend analysis on studies achievement pattern in Home Economics among students in Secondary Schools in Cross River State clearly show that between 1989 and 2002, there was a steady average of 1.7% annual decline in students A to C grade of acceptable achievement in Home Economics at Junior Secondary School Certificate Examination (Essien, 2004; Seweje, 2003, Ukewe, 2002, Hanushek, 2000; and Aaronson; Barrow & Sander 2003). Most existing research reports that have tried to solve the problem of poor achievement among Home economics students focus on students motivation, teacher quality, administrative policy discipline, school cultural environment, entry qualification of students, instructional process, gender and parental attitudes towards the subject (Nwokocha, 2005, Ofem & Inyang2006 and Asuquo, 2005). From the above, it could be observed that no study has been carried out using teacher demographic variables to solve the problem of poor Home Economics academic

achievement in Calabar Educational zone of Cross River State. This lacuna is what this study stands to fill.

Teacher demographic variables are the personal attributes of the teacher that make him or her distinct from one another to excel in his or her chosen career. The Webster's Dictionary (1994) defines demographic variables as the distinctiveness of person. Laczko-kerr and Berliner (2001) see demographic variables as the peculiar attributes of a person.

Scholars like Essien (2004) and Aje (2006) argued that Teachers' demographic variables have significant effect on students' academic achievement in Home economics. It therefore becomes necessary to study teacher's demographic variables and students' academic achievement in Home economics in Secondary Schools in Calabar Educational Zone of Cross River State.

Statement of the problem

The issue of poor academic performance of students in Nigeria has been of much concern to all and sundry. The problem is so much that it has led to the widely attained fallen standard of education in Cross River State and Nigeria at large. The quality of education depends on the teachers as reflected in the performance of their duties. Over time, students' academic performance in both internal and external examination had been used to determine excellence in teachers and teaching. Teachers have been shown to have an important influence on students' academic achievement and they also play a crucial role in educational attainment because the teacher is ultimately responsible for translating policy into action and principles based on practice during interaction with the students. Both teaching and learning depend on teachers; no wonder the teacher demographic variables have been conceptualized as those distinct features in a particular teacher that make him or her to perform his or her duty effectively to produce desired results.

Considering governments' huge investment in public education, its output in terms of quality of students has been observed to be unequal with government expenditure. Also looking at government efforts to encourage self-reliance among youths, especially using subject like Home economics, it has been observed with dismay that students don't show interest in the subject thus manifesting poor academic achievement in the subject. Consequent upon the observed deterioration in the academic achievement, attitude and values of secondary school students in Home economics subject in public Secondary Schools, one wonders if the high failure rates and the poor quality of the students in Home economics is of a reflection of the teacher's demographic variables. In other words, the teacher demographic which is an attribute of what he is made up of could be responsible for the observed poor performance of students in Home Economics and the widely acclaimed low number of entrepreneurs in cross river state and Nigeria at large.

This study was designed to determine if teachers' demographic significantly had influence on the academic achievement of students in home economics in public secondary schools in Calabar educational zone of Cross River State. It was arrived at answering the question: "Does teachers' demographic have significant influence on students' academic achievement? In answering this question, the study determined and described the relationship between teachers' educational qualification and students' academic achievement in Home Economics. It also determines whether teachers' experience has any significant influence on the academic performance of Home Economics Students.

Purpose of the study

This study investigated the influence of teacher's demographic on students' academic achievement in secondary school Home Economics in Secondary Schools in Calabar Educational Zone of Cross River State. Specifically, the purpose of the study is:

1. To assess the influence of teachers educational qualification on the students' academic achievement in Home Economics.
2. To determine the influence of teachers' experience on students' academic achievement in Home Economics.

Research hypotheses

To achieve the above purpose, the following hypotheses were formulated and tested at 0.05 level of significant.

1. Teacher's educational qualification has no significant influence on student' academic achievement in Home Economics.
2. Teacher's experience has no significant influence on students' academic achievement in Home Economics.

LITERATURE REVIEW

Education attainment equips potential Job seekers with skills. Darling Hammond, Barry and Thoreson (2007) observed that what is basic to successful performance on one's Job is best taught within formal educational framework. The scholars also emphasized educational qualification as being a crucial ladder to job performance and a rewarding job position in Nigeria.

In a study on the impact of teachers' qualification on students' performance, Colfalter, Ladd and Vidgor (2006) found that a significant difference exists in the mean performance of students in schools staffed with qualified teachers and those schools staffed with unqualified teachers. Adeniji (2004) supported this finding to a great extent that teachers' qualification has potent relationship with students' achievement. Ukewe (1999) observed that many students draw inspiration from competent and good teachers who are essentially qualified. This means that educational training influences job performance and also acts as a reliable indicator of the type of

work one should look for. Iheanacho (2002) argued that teachers with higher education qualification are more effective than those with lower qualification and that skilled teachers with some additional skills are more productive than the unskilled. This could be the reason for specifying the minimum educational qualification for entering into the teaching profession in Nigeria to be the Nigerian Certificate in Education (N.C.E) by the Federal Republic of Nigeria (2004), in her National Policy on education.

He further reports that when an individual opts to obtain additional qualification, his rate of return at a particular level is raised. He proved this by comparing the performance of secondary school learners and the University graduates. Therefore, teachers with higher qualification are expected to be more productive, all things being equal, especially as they earn more. They also see themselves as experts in their areas of specialization.

In a causal model of Onuoha (1999) teachers' qualification is seen to influence students' academic achievement both directly and indirectly. It has a path coefficient of 0.019 which accounts for 5.1 percent of the total effect of the tier predictor variables and also accounts for 3.24 percent of the variance in students' academic achievement. Its direct effect accounts for 5.3 percent of the total effect of all the predictor variables while its indirect effect account for 10.4 percent also of the total effect of the tier predictor variables. The researcher concluded that the lack of suitably qualified teachers with pedagogical skills; commitment and practical orientation, seriously effects students; academic achievement.

In postulating his famous law of effect, Thorndike in Amaefuna (2002) stressed the role of practice. Bower and Hilgard (1999) emphasized the need for practice by stating that there is no substitute for repeated practice when learning such basic skills as reading, writing and arithmetic. One with much practice will form the habits which become automatic and be performed rapidly and effortlessly. In the same view, Amaefuna (2002) emphasized that the role repetition plays is not only in habit formation, but also in habit strength. These psychological principles support the saying that "practice makes perfect". According to Augrist (2004) teachers with long experience on the job are bound to be more knowledgeable in their specialized areas including their teaching subjects and education principles on theories.

Fetter (1999) investigated the relationship between measures of mathematics, teacher skills and students achievement in Californian High Schools. Text scores were analyzed in relation to teachers' experience and education and students demographics.

Adeniji (2004) found out in a path-analytic study of some teacher characteristics and teacher job performance and secondary schools in Ogun State that teaching experience was an effective variable that had direct causal influence on teachers' job performance. There are other studies which support the finding that the longer the years of experience of a worker, the higher the level of job performance. Among them are Seweje (2003); Arubayi (1999), Onuoha (1999), Ukwayi

(2001); and Adeniji (2004) The study of Onuoha (1999) revealed that teacher's years of experience has early direct effect on students' academic achievement. This result is not surprising as teacher's years of experience alone may not change achievement in school subjects. This implies that teachers with longer years of experience teach more effectively than those with fewer years of experience. This remarkably influences their pupils' performance in Home Economics and any other subject.

The above reviewed literature showed that teachers related factors have strong effect on learning outcomes in Home Economics. More specifically, the following factors were examined: teacher's educational qualifications and years of experience. The literature also revealed the misconception teachers have transmitted to the students as it affects their performance in Home Economics.

Research studies involving the levels of independent variables were also reviewed. Many of the studies focused on science subjects and a few in Home Economics. The delivery system of the two subjects is the same. They required practical. The review showed that teachers' educational qualification and experience may have direct effect on the students' academic enhancement on schools.

METHODS

The study adopted the survey design. According to Ali (2006), survey design is a type of design which is mainly for finding, describing and interpreting data collected from sample of a very large population through a representative method in order to find out and describe existing phenomena in the population.

This design was considered appropriate because it centres on people, their beliefs, opinion, attitude and the vital parts of people. Also, where all members of a targeted population could not be reached, a survey design makes it possible for inference on the population to be drawn using the sample. Since no direct manipulation was carried out on the independent and dependent variables respectively in this study because they were already in existence and had already occurred in the life of secondary school students in the zone, the survey design became the most appropriate for the study. Home economics teachers and all Jss111 students who offered Home economics in all secondary schools in Calabar Educational zone of Cross River State constituted the population of the study.

The simple random sampling technique was used to draw the sample for the study. Therefore, 420 respondents were drawn from 20 public secondary schools that have been presenting candidates for external examinations. Relevant information for the study was obtained through the use of the researchers designed instruments tagged "Teacher's demographic variable questionnaire (TDVQ) and the test named "Home Economics Achievement Test" (HEAT). This

was to test the extent to which teacher's demographic variables influence student's academic achievement in Home Economics. In all four hundred and twenty (420) questionnaires were produced and distributed. The instruments were validated by some experts in Test and measurement and two other lecturers in the department of vocational education. Some necessary adjustments were made on it before it was finally administered on the sample. The teacher demographic variable questionnaire was used mainly for classification of different levels of teacher demographic. The classification includes Educational qualification and years of experience. The Home Economics Achievement Test (HEAT) consist of fifty(50) multiple choice questions with three distractors and one correct option Lettered A-D. The instrument was scored immediately after its administration. Each correct answer was scored two(2) marks. The total maximum mark for all the fifty questions was one hundred (100) and the minimum was zero (0).

The instruments were administered personally on the respondents. The method was adopted to ensure 100% return rate and to offer explanation where necessary. The investigator and trained assistants monitored the completion and collection of the questionnaire and test directly from the respondents (Home economics teachers and student) who participated in the study.

RESULTS

Hypothesis one

There is no significant difference between the academic achievement of Home Economics students taught by qualified (Professional) teachers and those taught by unqualified (Non-professional) teachers. The analysis is as shown in table I

Variable	N	\bar{X}	SD	Df	t-cal value	t-crit. Value
Students taught by qualified teachers	227	80.40	4.10			
				398	14.50	1.96
Students taught by unqualified teachers	173	74.60	3.70			

TABLE 1: *t-test Analysis of Achievement test scores of Home Economics students taught by qualified and unqualified teachers. Significant.*

Source: Field survey, 2013.

The analysis in table one shows that the calculated t value 14.50 is greater than the critical t value of 1.96 at $p < .05$ alpha level. Therefore, the null hypothesis which stated that there was no

significant difference between the academic achievement of Home Economics students taught by qualified teachers and those taught by unqualified teachers is rejected. The table also shows that Home economics students taught by qualified teachers achieved significantly better than their counterparts taught by unqualified teachers.

Hypothesis two

There is no significant different between the academic achievement of Home economics students taught by experienced (5years and above in service) teachers and those taught by inexperienced (less than 5 years in service) teachers. The analysis is as shown in table 2

Variables	N	\bar{X}	SD	Df	t-cal value	t-crit. value
Student taught by						
Experienced teachers	246	81.30	3.85			
Inexperienced teachers	398	19.00	1.96			
Students taught by						
Inexperienced teachers	154	73.70	3.95			

Table II: t – test analysis of achievement test scores of Home Economics students taught by experienced and inexperienced teachers.

Significant

Source: Field survey, 2013.

The analysis in table 2 shows that the calculated t value of 19.00 is greater than the critical t value of 1.96 at $p < .05$ alpha level. Hence, the null hypothesis was rejected for the alternative. This means that Home Economics students that are taught by experienced teachers achieved significantly better than their counterparts taught by the inexperienced teachers.

DISCUSSION

The results of the investigation as shown in table 1 indicated that a significant difference was found to exist in the academic achievement of Home Economics students taught by qualified teachers and those taught by unqualified teachers. The result showed that Home Economics students taught by qualified teachers achieved significantly better than their counterparts taught by unqualified teachers.

The study has revealed the presence of unqualified (non-professionals / non-specialist) Home Economics teachers in the Secondary School system. It should be noted that, although this confirms the earlier findings of Eze (2001), the proportion of non-qualified Home Economics teachers is not as high as what was obtained in the past (Ofem and Inyang, 2006). This may perhaps be due to increased government attempt to address this issue as well as the increased

turn out of Home Economics teachers from the Colleges of Education, all over the country and through BSc.Ed Sandwich programmes.

An ignorant teacher cannot effectively enlighten his/her students. It is not only to make teaching brilliant that makes a good, competent and qualified teacher, but rather to make it remarkably simple to the students. This lack of qualified and specialist teachers has far reaching consequences on students' academic achievement. Well qualified teachers are needed to achieve educational objectives. This fact has been recognized in the National Policy on Education (FRN, 2004) that no educational system can raise above the quality of its teachers. Since the efficiency/effectiveness of any teacher at any level is a function of his/her educational background, professional training, ability and capability, emphasis has to be laid on teacher education with a view of producing highly motivated conscientious, efficient and creative teachers with the intellectual and professional background that can bring about the desired result. The findings also implied that a teacher cannot enlighten his students if he or she is half baked. Educational qualification not just in paper but in form bestows competence on a teacher and the ability to perform excellently. The result of this study is in line with the findings of Colfalter, Ladd and Vigdor (2006) that a significant difference exists in the mean performance of students in schools staffed with qualified teachers and those schools staffed with unqualified teachers. The result is also in agreement with the findings of Adeniyi (2004) that teachers' qualification has potent relationship with students' academic achievement. Seweje (2002) also discovered that there is a significant difference between the achievement of students taught by HND and Degree Certificate holders in Education. Those taught by degree holders in Education were consistently better in their performance than HND Certificate holders. A qualified teacher accordingly is one who not only holds a degree in the relevant subject area, but such a person must in addition be knowledgeable in the science and art of teaching.

The result of the investigation that fuses on teachers' experience indicated that a significant difference was found to exist in the academic achievement of Home Economics students taught by experienced teachers and those taught by inexperienced teachers. The implication of the finding is that Home Economics students taught by experienced teachers achieved significantly better than their counterparts taught by inexperienced teachers.

The result in tandem with the findings of Fetter (1999) that after controlling for poverty, teachers experience and preparations significantly predict test scores. Also, Olele (1995) posited that as a teacher passes through many years of service, there is likelihood to have assumed different positions which will make him to be more effective in teaching and thus influence students' academic achievement positively. The results also agree with the findings of Seweje (2002) and Adeniji (2004) that teaching experience predicts students academic achievement in various subjects including Home Economics. They discovered that schools with experienced and qualified teachers usually do better in external examinations than those schools with inexperienced, unstable and poorly qualified teachers. From the discussions above, it can be deduced that experience and the needed competency to carry out a duty very well for the

improvement of students' academic achievement is a product of good number of years in such service. A modest way of explaining these finding is the fact that the longer a teacher works in a school, the greater the probability that his productivity will be higher.

The number of years a teacher spends in the profession may determine his ability to teach effectively. Good teaching is mastered by practice, implying again than the longer one teaches, the better the students' achievement in examination. Hence, effective teaching is achieved by experience in the classroom. Experience has been described as the best teacher. This might in the context of this study mean that the more experienced a teacher is, the more he/she teaches well to produce excellent students. Inexperienced teachers are very disposed to the raise of questioning as well as simple clear words to explain concepts during their lesson. However, they hardly allow their students to experiment on their own and such teachers spend too much time feeding them with facts and information. This implies that inexperienced teachers are merely loading the students with facts and spending less or no time in allowing students to inquire and discover on their own. The disposition of a Home Economics teacher to the subject will highly affect the way be teaches it. For instance, if he conceives himself as a dispenser of knowledge, he may consider it all uphill task to teach students the processes involved in the subject. Instead, he will incline to give as much information (facts, knowledge) as possible to the students.

CONCLUSION

Undoubtedly, the findings of this study has clearly linked teacher's qualification and experience vis a vis academic achievement of students in Home Economics. This study confirmed that these variables were quite germane essential and that they were inextricably linked to academic achievement of students in Home Economics.

From the foregoing, one can conclude that teacher factors such as qualification and experience play vital role in the effectiveness of teachers. The relative contribution of the different levels of teacher demographic on academic achievement of students in Home Economics indicated that teacher's qualification has the most facilitative influence on students' academic achievement in Home Economics.

RECOMMENDATIONS

In view of the fact that one of the indices to measuring the productivity of education is academic achievement of students turned out of the system coupled with the scarce resources allocated to education. It is the recommendation of the researchers to advice for prudent utilization of the limited ones. Indeed, since the teacher constitutes one of the determinants of academic achievement of students, his development and full utilization should be intensified. Consequent upon the findings of this study, it is recommended that:

1. The government should intensify its efforts at training more Home Economics teachers especially, male teachers in order to fill the existing vacuum.
2. Training in service programmes for incumbent unqualified Home Economics teachers in Home Economics education should be embarked upon in order to enhance efficiency and consequently, better students' academic achievement in Home Economics.
3. Teachers who have served for five years should be compulsorily sent for retraining to ensure that they are up to date and adequately prepared for the challenges posed by their work and technology.
4. Re-training programmes should be regular for both qualified and unqualified teachers to enable them to be current with changing society.
5. Even the non-Home Economics teachers should be made to undergo training since there is a paradigm shift from certificate to self-reliance.

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