GENDER AND SOCIO-ECONOMIC STATUS AS CORRELATES OF STUDENTS' ACADEMIC ACHIEVEMENT IN SENIOR SECONDARY SCHOOLS

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Abstract

Educators have expended tremendous efforts in the study of personal factors on students' academic achievement. Sex related problems have contributed greatly to the creation of gender crisis by providing unequal opportunities for males and females. Similarly, the state of the home environment or family structure is supposed to have important significance on the child's academic achievement. This study investigated gender and socio-economic status as correlates of students' academic achievement in senior secondary schools. Two major hypotheses were formulated and tested at 0.05 level of significance. Pearson-Moment Correlation Co-efficient was used to analyze the data. The participants were 108 students drawn from three senior secondary schools in Nigeria. Their ages ranged between 14 and 21 with a mean age of 17.1 years. Two validated instruments were used to elicit responses from the participants. Results revealed (i) negative significant relationship between gender and academic achievement ($r = -.260$; $p<.05$), (ii) no significant relationship between socio-economic status and academic achievement ($r = .083$; $p<.05$).

Keywords: Gender, socio-economic status, academic achievement, senior secondary school

Introduction

Academic achievement of students especially at the secondary school level is not only a pointer to the effectiveness or otherwise of schools but a major determinant of the future of youths in particular and the nation in general. The medium through which the attainment of individuals and the nation's educational goals can be achieved is learning. Learning outcomes have become a phenomenon of interest to all and this account for the reason why scholars have been working hard to unravel factors that militate against good academic performance

(Aremu & Sokan, 2002). This phenomenon has been variedly referred to in literature as academic achievement, or scholastic functioning. Academic achievement of learners has attracted attention of scholars, parents, policy -makers and planners. Adeyemo (2001) opined that the major goal of the school is to work towards attainment of academic excellence by students. According to him, the school may have other peripheral objectives; emphasis is always placed on the achievement of sound scholarship. Besides, virtually everybody concerned with education places premium on academic achievement; excellent academic achievement of children is often the expectation of parents (Osiki, 2001).

At the outset of an activity, students differ in learning as a function of their prior experiences, personal qualities and social supports. The latter includes the extent that parents and teachers encourage them to learn, facilitate their access to resources necessary for learning, and teach them strategies that enhance skill acquisition and refinement. Parent's academic aspirations for their children influence their children's academic achievements both directly and indirectly (Bandura, Barbaranelli, Caprara, and Pastorelli, 2001).

Gender is one of the personal variables that have been related to differences found in motivational functioning and academic achievement. Different research has demonstrated the existence of different attribution patterns in boys and girls, such that while girls tend to give more emphasis to effort when explaining their performance (Lightbody, Siann, Stocks, & Walsh, 1996; Georgiou, 1999; Powers & Wagner, 1984), boys appeal more to ability and luck as causes of their academic achievement (Burgner & Hewstone, 1993). Different research has also pointed out that girls usually make external attributions for successes and failures, and that when they make internal attributions, these refer not so much to effort, but to ability (Wiegers & Friere, 1977; Postigo, Perez & Sanz, 1999). However, boys usually attribute successes to stable internal causes like effort, thus showing an attributional pattern which enables them to enhance their own image of themselves (Smith, Sinclair & Chapman, 2002).

Research of gender differences in cognitive processes, intellectual abilities, area of interest, stereotypical perceptions of every-day behaviours and the ability to perform various tasks has not been conducted. Two theories explaining personality differences between men and women have been proposed. The first suggests that the male is the prototypical human, and females should be understood in relation to men. The second opines that men represent the cognitive domain, which is positively valued in Euro-American culture, and women represent the less-valued affective realm (Hall & Lucas, 1976 in Klein, 2004). The

differences in the scholastic achievements of boys and girls are generally attributed to biological causes and/or to cultural and stereotypes (Klein, 2004).

The last two decades have been devoted to addressing gender inequality in education. Some studies (Okebukola, 1993; & Jiboku, 2008) have shown an all – time low participation of women in education. Educators have therefore expended tremendous efforts in the study of the personal factors affecting academic achievement especially in the sciences and social sciences. Notable among these variables is the study of the phenomenon of gender or sex equity in education. A rich harvest of explanation of causes, understanding of cost to the society and possible intervention has brought about several researches, workshops, seminars and training in this area.

In Nigeria, gender issues abound in all spheres of the society. The educational conditions of the girl-child vis-à-vis the boy-child constitute an important gender issue. In our cultural setting, the cultural and traditional responsibilities of men and women are different; hence the influences in the upbringing of the female child and male child. As Bisong (2006) observes "… those who operate a curriculum meant to foster integration of courses for girls and boys are likely to unconsciously reflect the cultural bias". In addition to the cultural norms, girls and women are regarded as frail and needing protection because of their supposedly physical strength and the natural processes they are subjected to.

Gender involves the psychological and socio-cultural dimensions of being male or female. A gender role is a set of expectations that prescribes how females or males should think, act, and feel. The concept of gender-role classification involves a personality-trait-like categorization of a person (Santrock, 2005). However, it is important to think of personality in terms of traits and contexts rather than the personality traits alone. The importance of considering gender in context is nowhere more apparent than when examining what is culturally prescribed behaviour for females and males in different countries around the world (Gibbons, 2000). In the social roles view, women have less power and status than men do and control fewer resources. The social cognitive theory of gender emphasizes that adolescents' gender development influenced by their observation and imitation of others' gender behaviour, as well as by rewards and punishments of gender–appropriate and gender–inappropriate behaviour. Parents and siblings influence adolescents' gender roles. Peers are especially adept at rewarding gender appropriate behaviour.

In a study conducted many years ago by Maccoby and Jacklin (1974), it was concluded that males have better math and visuospatial skills (the kinds of skills an architect

needs to design a building's angle and dimensions) than females, whereas females have better verbal attitudes than males. Subsequently, Maccoby (1987) concluded that the verbal differences between females and males had virtually disappeared, but that the math and visuo-spatial differences persisted.

Experts in the study of gender such as Hyde (1993, 2004; Hyde & Mezulis, 2001), believe that the cognitive differences between females and males have been exaggerated. For example, Hyde (2004) points out that there is considerable overlap in the distribution of females and males scores on math and visuospatial tasks. In a personal study by the U.S. Department of Education (2000), boys did slightly better than girls at mathematics and science. Overall, though, girls were far superior students, earning better grades and were significantly better than boys in reading. In another national study, females had higher reading achievement and better writing skills than male with the gap widening as students progressed through school (Coley, 2001). Females are more likely than male to be assigned to special/remedial education classes – females are more likely to be engaged with academic materials, be attentive in class, put forth more academic effort, and participate more in class than boys (Dezolt & Hull, 2001).

A probable reason for inequality in sex selection in some sex dominated subjects could be adduced to mere cultural and social orientation from parents and the entire society. However, the researcher is of the opinion that this idea can be readjusted for a better socio-economic society where all individuals are given equal opportunity to perform all tasks irrespective of their sex. Campbell, Hombo & Mazzeo (1999), arguing along the same line, asserts that sex is not a good predictor of academic skills, interest or even emotional characteristics. According to Campbell et al (1999), the difference between individual girls and boys are much greater than those between "average" boys. Arguing further, they posit that there is the tendency for people to generalize from the "average" girls or the average" boy to individuals. To them, averages can be very deceiving sometimes.

The influence of socioeconomic status on students' academic achievement at the individual level is still prevalent, but less strong in much of the literature. In a study of mother-only, mother-extended family, and two-parent families with children in first through third grades, concluded that two measures of parent expectations had a somewhat stronger influence than did the economic variables. The effects of prior achievement were stronger than poverty on junior high and high school students in a study of data obtained from the Longitudinal Study of American Youth (Brookhart, 1997). Cultural effects of a race and

gender interaction for African American males among elementary school-aged children were stronger than socioeconomic status in predicting reading achievement. Socio-economic status (SES) became stronger for individuals at the post-secondary level (Trusty, 2000) because more family and individual resources are necessary to attain this level. However, low prior mathematics achievement can have a strong barrier effect as well, regardless of family or individual socio-economic status (SES).

There is an awareness of the importance of the home environment or family structure on student's academic achievement. The home has a great influence on the students' psychological, emotional, social and economic state. In the view of Ajila & Olutola (2000), the state of the home affects the individual since the parents are the first socializing agents in an individual's life. This is because the family background and context of a child affect his reaction to life situations and his level of performance. Although, the school is responsible for the experiences that make up the individual's life during school periods, yet parents and the individual's experiences at home play tremendous roles in building the personality of the child and making the child what he is. Thus, Ichado (1998) concluded that the environment in which the student comes from can greatly influence his performance in school.

The home environment or family has been recognized as having a lot of influence on the academic performance of students (Nzewuawah, 1995; Ajila & Olutola, 2000). Studies have been concentrated on the area of socio-economic status of parents. Other aspects of parental environment such as the structure of the family have been grossly neglected. Yet, Ichado (1998) stated that parents' constant disagreement affects children emotionally and this could lead to poor academic performance in school.

The family lays the psychological, moral and spiritual foundation in the overall development of the child. While the mother's significant role in this cannot be over-emphasized. Studies on father-child relationship suggest that the presence of a father in the home influences significantly the development of a child (Agulanna, 1999). Thus, parenthood is a responsibility requiring full cooperation of both parents who must ensure the total development of their offspring.

Adeyemo (2006) explained that the child's first place of contact with the world is the family. The child as a result acquires initial education and socialization from parents and other significant persons in the family; the parents indeed the child's first teacher, when parents are involved in the education of their children; having interest in Mathematics early enough, such children are likely to perform and achieve better later. Fafunwa (1998) pointed

out that a task that the home must perform on the children is the development of the child's intellectual skills. Intellectual skills can be developed if parents can show concern about the children education by providing their academic needs and give the needed moral support.

Parents have a profound influence on whether a home provides intellectual stimulation, physical and psychological safety, an appropriate degree of structure, and supportive relationships. Children with more opportunities at home to build academic skills tend to be better at integrating family, school and community efforts (Ferguson, 1995). Schools in low socio-economic status areas are more likely to have a higher percentage of students with lower achievement test scores, lower graduation rates, and fewer students going to college. These schools often have fewer resources than schools in higher socio-economic status neighbourhoods. They are also more likely to have young teachers with less experience than those in schools in higher socio-economic status neighbourhood. Schools in low socio-economic status areas are more likely to encourage rote-learning, whereas schools in higher socio-economic status areas are more likely to work with adolescents to improve their thinking skills (Spring, 2002). In sum, too many schools in low socio-economic status neighbourhoods provide students with environments that are not conducive to effective learning and the schools' buildings and classrooms often are old, crumbling and poorly maintained (Santrock, 2005). The families, schools and neighbourhoods of adolescents have socio-economic characteristics. Some adolescents have parents who have a great deal of money, and who work in prestigious occupations. These adolescents live in attractive houses and neighbourhoods, enjoy vacations abroad and attend schools where the mix of students is primarily from middle- and- upper socioeconomic backgrounds. Such variations in neighbourhood settings can influence adolescents' adjustment (Blyth, 2000; Booth & Crouter, 2000; Fuligni & Yoshikawa, 2003). There are also indications of socio-economic differences in the way that parents think about education. Middle – and – upper – income parents more often think of education as something that should be mutually encouraged by parents and teachers. By contrast, low-income parents are more likely to view education as teacher's job. Thus, increased school-family linkages can especially benefit children and adolescents from low-income families (Hoff, Laursen, & Tardif, 2002; Magnuson & Duncan, 2002).

In a district level study of urban schools belonging to the Council of Great City Schools (2001), the results of the Stanford Achievement Test indicated that the greater the concentration of poverty in the school districts, the lower the student achievement. The

influence of socioeconomic status at the individual level is still prevalent (Capraro, Capraro, & Wiggins, 2000) but less strong in much of the literature. Entwisle & Alexander (1996), in a study of mother-only, mother-extended family, and two-parent families with children in first through third grades, concluded that two measures of parent expectations had a somewhat stronger influence than did the economic variables. The effects of prior achievement were stronger than poverty on junior high and high school students in a study of data obtained from the Longitudinal Study of American Youth (Brookhart, 1997). Cultural effects of a race and gender interaction for African American males among elementary school-aged children (Diamond & Onwuegbuzie, 2001) were stronger than socioeconomic status in predicting reading achievement. SES became stronger for individuals at the postsecondary level (Trusty, 2000) because more family and individual resources are necessary to attain this level. However, low prior mathematics achievement can have a strong barrier effect as well, regardless of family or individual socio-economic status (SES).

Statement of the problem

Educators have expended tremendous efforts in the study of personal factors affecting students' academic achievement. Notable is the study of gender phenomenon or sex equity in education. It has been observed that sex related problems have contributed greatly to the creation of gender crisis in the society by providing unequal opportunities for males and females from childhood to adulthood. Similarly, there is an awareness of the importance of the home environment or family structure on students' academic achievement. The state of the home may affect individual since the parents are the first socializing agents in an individual's life. This is because the family background and context of a child affect his reaction to life situations and his level of academic achievement. Since no nation can rise above the level of education of her citizens, this study is set to investigate gender and socio-economic status as correlates of students' academic achievement.

Significance of the study

Research of gender and socio-economic status differences in academic achievement will offer educators of young adolescents thought-provoking information on implications and guidance specific directions to take; need for parents to be exposed to parenting skills and their duties towards their children academics; parents will be able to encourage and support

their children learning through purchase of learning materials and that learning is real for both sexes.

Research Hypotheses

Ho1: There is no significant relationship between gender and students' academic achievement.

Ho2: There is no significant relationship between socio-economic status and students' academic achievement.

Method Design

The study used descriptive research design in form of an ex-post-facto approach. None of the variables was manipulated. Instead, an objective description of the phenomenon was done.

Population and Sample

The population consists of all the seventeen (17) secondary schools in Odogbolu Local Government of Ogun State, South-West, Nigeria. Stratified random sampling was used to select three out of the seventeen secondary schools which serves as sample for the study. The students in the three (3) secondary schools consist of two hundred and seventy-seven (277), out of which one hundred and eight (108) students were randomly drawn. Thirty-six (36) students (18 males and 18 females) were randomly chosen from each school.

Instruments

Demographic Information Form (DIF)

This was designed by the researcher. The socio-economic background of participants was assessed through a form that contains demographic information about the participants. The form contained information such as name of school, gender, age, total number of family members, structure of the family, parental type (double or single parenting), parents' highest qualification, occupation, their status, and level of income, type of house, number of rooms or flat occupied by parents etc. The participants are to make a mark (√) indicating their agreement in front of the box provided for each statement. The number of marks (√) was later counted and added together. Participants' means scores and standard deviation were calculated to determine their socio-economic classes.

Academic Achievement Test (AAT)

Academic achievement was measured with AAT developed by the researcher. It measures academic achievement of participants on three subjects: English- Language, Economics and Biology. It contained multiple-choice items with 45 items on English-Language, 30 items on Economics and 25 items on Biology.

Validity

Validity was ascertained through scrutiny of items by three English-Language, Economics and Biology teachers in ensuring both face and content evidences of validity.

Reliability

The AAT was trial-tested with two administrations of two (2) weeks interval on twenty (20) participants drawn from a different Local Government Area. The two sets of scores were correlated using Pearson-Product Moment Correlation and 0.88 was obtained as co-efficient of reliability. Further analysis of the AAT revealed internal consistency of 0.86 on Cronbach Alpha.

Procedure

The researcher visited the schools selected for the study with consultation and assistance from the school principal and the school counsellor. The instruments were administered on the participants and collected on the same day.

Method of data analysis

The data resulting from scoring the two instruments was subjected to Pearson-Moment Correlation Coefficient which permitted the testing of the hypotheses earlier raised for the study.

Results

Ho1: There is no significant relationship between gender and students' academic achievement

Table 1: Relationship between gender and students' academic achievement in English- Language, Economics and Biology

		Gender	Achievement
Gender	Pearson Correlation	1	-.206
	Sig. (2-tailed)		.032
	N	108	108
Achievement	Pearson Correlation	-.206	1
	Sig. (2-tailed)	.032	
	N	108	108

- Correlation is significant at the 0.05 level (2 – tailed)

Ho2: There is no significant relationship between socio-economic status and students' academic achievement.

Table 2: Relationship between Socio-Economic Status and students' academic achievement in English-Language, Economics and Biology

		Socio Economic Status	Achievement
Socio Economic Status	Pearson Correlation	1	.083
	Sig. (2-tailed)		.393
	N	108	108
Achievement	Pearson Correlation	.083	1
	Sig. (2-tailed)	.393	
	N	108	108

- Correlation is significant at the 0.05 level (2-tailed)

Discussion of findings

Ho_1 which stated that there is no significant relationship between gender and students' academic achievement showed a negative significant relationship between gender and students' academic achievement ($r= -.206$; $p<0.05$). The negative significant relationship indicated that the male participants achieved higher than the female. This findings is in line with researches that have argued that gender differences in social, personality and academic variables may actually be a function of gender orientation – the stereotypic beliefs about gender that students hold – rather than of gender. Likewise, gender – inequality in education has been address. Okebukola (1993) and Jiboku (2008) studies have shown an all-time low participation of women in education. Differences in scholastic achievements of male and female are generally attributed to biological causes and cultural stereotypes (Klein, 2004). The importance of considering gender in context is nowhere more apparent than when examining what is culturally prescribed behavior for males and females in different countries around the world, (Gibbons, 2000). The social cognitive theory of gender emphasizes that adolescents' gender development is influenced by their observation and imitation of others' gender behavior. Parents and siblings influence adolescents' gender roles, while peers are especially adept at rewarding gender appropriate behavior.

Keeping in mind that sometimes measures of achievement in school or scores on tests may reflect many factors besides cognitive ability, for example some test scores may reflect stereotype threat. Performance in school may in part attempts to conform to gender roles or differences in motivation, self-regulation or other socio emotional characteristics (Santrock, 2005). Campbell, Hombo & Mazzeo (1999) assert that sex is not a good predictor of academic skills. According to them, the difference between individual girls and boys are much greater than those between "average". They posit that there is the tendency for people to generalize from the "average" girls or the "average" boys to individuals. To them, averages can be very deceiving sometimes. Okebukola (1993) believed that all students, irrespective of sex can perform equally in any given task. He supported his claim by asserting that when students have opportunities to interact among themselves, the teacher and the materials, knowledge and skills are acquired and learning is real for both sexes.

The second hypothesis for the study found out that there is significant relationship between participants' socio-economic status and students' academic achievement ($r = .083$; $p > 0.05$). This result indicates that the home or family structure has a great influence on the students' psychological, emotional, social and economic state,(Nzewuawah. 1995; Ichado,

1998; Ajila & Olutola, 2000). Parents have a profound influence on whether a home provides intellectual stimulation, physical and psychological safety, an appropriate degree of structure and supportive relationships. Children with more opportunities at home to build academic skills tend to be better (Ferguson, 1995). The families, schools and neighbourhoods of adolescents have socio-economic characteristics. Schools in low socio-economic status areas are more likely to have a higher percentage of students with lower achievement test scores. These schools often have fewer resources than schools in higher socio-economic status neighbourhood. They are also more likely to have young teachers with less experience than those in schools in higher socio-economic status neighbourhood. Schools in new socio-economic sdtatus areas are more likely to encourage rote-learning, whereas schools in higher socio-economic status areas are more likely to work with adolescents to improve their thinking skills (Spring, 2002). There are also indications of socio-economic differences in the way that parents think about education. Middle and upper income parents more often think of education as something that should be mutually encouraged by parents and teachers. By contrast, low income parents are more likely to view education as teacher's job. Thus, increased school family linkages can benefit adolescents' academic achievement from low income families (Hoff. Haursen & Tardif, 2003, Magnuson & Duncan, 2002).

Conclusion and Recommendations

Gender issues abound in all spheres of the society. The educational conditions of girl child vis-à-vis the boy-child constitute an important gender issue. The cultural and traditional responsibilities of men and women are also different, hence the influence on the upbringing of the female child and male child. The concept of gender-role classification involves a personality-trait-like categorization of a person. Inequality of gender in some sex denominated subjects could be adduced to mere cultural and social orientation from parents and the entire society. However, the researcher is of the opinion that this idea can be readjusted for a better socio-economic society where all individuals are given equal opportunity to perform all tasks irrespective of their sex. Equally, the family lays the psychological, smoral and spiritual foundation in the overall development of the child. Thus, intellectual skills can be developed and enhanced if parents can show concern about their children's by providing their academic needs and give the needed moral support.

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