Relationship between Socio-Economic Background, Test Anxiety, and Academic Achievement among Undergraduates in North-West Geopolitical zone, Nigeria

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Abstract

This study investigated the relationship between socio-economic background, test anxiety and academic achievement among undergraduate students in North-West geopolitical zone, Nigeria. This research employed correlational design using three (3) objectives as a guide for the study. The population of this study is made up of eleven thousand, two hundred and twenty-five (11,225) 300 level students of the three sampled universities. The sample of this study is 370 male and female students of the three selected universities, selected using simple random sampling technique. Two main instruments, socio-economic background and test anxiety inventory and students' academic achievement result, were used for this study. The data collected was analysed using descriptive and inferential statistics. Pearson Product Moment Correlation (PPMC) was used to test the hypotheses at 0.05 level of significance. The findings of the study revealed, amongst others, that significant relationship exists between socio-economic background and test anxiety (p=0.003, r=0.566). It was recommended, among others, that university management should set up functional psychological testing and counselling centres to assist in treating students with anxiety problem so as to enhance proper adjustment.

Keywords: socio-economic, background, test, anxiety, academic, achievement

Introduction

Socio-economic background relates to a combination of an individual's income, occupation and social background. Socio-economic background is a key determinant of success and future life chances. According to Richman, Johnson and Boxham (2006), parent's education is one of the strongest predictor of cognitive performance and academic attainment of students, among other aspects of socio-economic status. Mukherjee (1999) states that socio-economic status is used as a measure of an individual's or group's social position in the community. He also reported that mothers' education is a strong predictor of students' academic achievement. Socio-economic status is a term used by sociologists, economists, and other social scientists to describe the class standing of an individual or group. It is measured by a number of

factors, including income, occupation, and education, and it can have either positive or negative impact on a student's life (Ashley, 2019). Oakes and Rossi (2002) assert that it is a fact that in families where the parents are privileged educationally, socially and economically, they promote a higher level of achievement in their offspring. According to Jeynes (2002), the socio-economic status of a child is usually determined by parental occupational status and income level, and the environment in which the child is brought up. It is also affected by parents' involvement in learning activities and effective parent-teacher relationship. It is understood that low socio-economic status negatively and depressingly affects students' academic motivation and leads to test anxiety due to high additional stress and tension at home, thereby affecting students' academic achievement in the long run. Studies by Eamon (2005) and Jeynes (2002) have established that socio-economic status affects students' outcome. According to McNeal (2001), socio-economic status has also been shown to override other educational influences such as parental involvement in their children's schooling.

Test anxiety is an overwhelming feeling of disturbance and distress among the students around the world. It is a type of performance problem just like when some people get nervous speaking to large crowds or trying something new. Test anxiety can be a devastating problem for many college and university students, because it may impair their academic achievement and well-being in the long run. According to Porto (2013), test anxiety produces psychological symptoms that build up in students before a test; these include restlessness, unusual body movements, difficulty in concentrating, insomnia, fatigue, muscles contraction, abdominal pain and tremor (Parviz & Alemi, 2010). Linnenbrink (2007) avers that there is evidence that negative cognitive process strongly relates to academic achievement; this evidence that negative emotion are linked to this process is constant with the motion of mediation. Both anxiety, anger, poor socio-economic status may negatively affect student's ability to recall relevant information or material.

Academic achievement is the attainment obtained by a child in the lesson taught, which may include experience, knowledge, skill and the likes. The knowledge and skill are measured in student's Cumulative Grade Point Average (CGPA); the child's good or poor performance does not depend solely on attribute the child is born with, but his family background, social contacts, teachers, overall climate in his school, and assessment procedure. Academic performance may be defined as excellence in all academic disciplines, in class as well as co-curricular activities. Cohen and Garcia (2006) define academic achievement as "knowledge attaining ability or degree of competence in school. Task usually measured by standardized test and expressed in a grade or unit based on students' performance/achievement." Cohen and Apfel (2009) refer to academic performance as "the knowledge obtained or skill developed in the

school subjects usually designed by the test scores or marks assigned by the teacher." Achievement of student in the classroom takes a central role in the academic development of the students. Parents, teachers and school administrators take cognizance of the academic well-being of the students. Yardsticks are set by school authorities to measure performance, the standard sets by the university will determine whether a student is performing well or not. In the assessment of performance, Pekrun and Elliot (2006) argued that achievement is the behaviour of an individual that can be directly observed by another individual. Therefore, academic achievement has been seen as a term used for students based on how well they are doing in studies and classes. Academic achievement for university student is also seen as the extent to which a student has achieved his educational goals. This means that the student's academic performance is measured by the extent to which he/she has reached the educational goal he has set for himself. The university measures academic achievement in several ways which include Continuous Assessment Test (C.A.T) and a number of standardized test and examinations (Pekrun & Perry, 2007).

Statement of the problem
University is an open system where all members including students, teachers and administrators interact with one another. There is the need, therefore, to establish a conducive social environment and a healthy school environment where there is collective responsibility and effective interpersonal relationship among the different groups of members of the university community (teachers, students and administrators). Several factors have been identified as contributing to students' academic achievements which include test anxiety, home background, personality and intelligence, parents' socio-economic standing, social environments and societal norms, while poor physical, psychological and social aspect of school environments may also have effects on academic achievements of students. Test anxiety among university students may be a function of many factors which include fear, worry of not performing well in relation to expectation of parents, teachers, counsellors and peer groups, among others. Consequently, the goals of university may be jeopardized. However, teaching staff and other stakeholders are known to strive hard in providing enabling school atmosphere to stimulate good academic achievement of students.

In this regard, there is the need to establish a qualitative social environment, where there is collective responsibility and effective interpersonal relationship in the schools. However, it is observed that test anxiety measures such as teacher-student relationship, students' relationship, student's academic achievement are becoming poorer by the day, which may be as a result of high level of test anxiety and poor parental socio-economic status. This situation may in turn have effect on students' academic achievement especially at universities where level of collectiveness and cordial academic relationship are to be created so as to enhance learning among students.

Against this background, there is need to find out the relationship of socio-economic background, test anxiety and academic achievement among undergraduate students in North-West Geopolitical zone, Nigeria.

Objectives of the Study

1. To determine the relationship between socio-economic background and test anxiety among undergraduate students in North-West Geopolitical zone, Nigeria.

2. To determine the relationship between socio-economic background and academic achievement among undergraduate students in North-West Geopolitical zone, Nigeria.

3. To determine the relationship between test anxiety and academic achievement among undergraduate students in North-West Geopolitical zone, Nigeria.

Hypotheses

Ho1: There is no significant relationship between socio-economic background and test anxiety among undergraduate students in North-West Geopolitical zone, Nigeria.

Ho2: There is no significant relationship between socio-economic background and academic achievement among undergraduate students in North-West Geopolitical zone, Nigeria.

Ho3: There is no significant relationship between test anxiety and academic achievement among undergraduate students in North-West Geopolitical zone, Nigeria.

Methodology

This research employed correlational design to determine the relationship between socio-economic background, test anxiety and academic achievement of undergraduate students in North-West Geopolitical zone of Nigeria. This design, according to Mitchell and Jolley (2007), is used when researchers want to find out the relationship between two or more variables. This design is a form of descriptive research undertaken when dealing with systematic collection of data or information from a population through the use of personal interview, opinion scale, questionnaire and observation. Out of seven (7) federal universities in the zone, the researcher employed simple random sampling technique to select three (3) universities namely: Ahmadu Bello University, Zaria, Kaduna state; Federal University Gusau, Zamfara state; and Federal University Birnin Kebbi, Kebbi state. The population of this study is made up of eleven thousand two hundred and twenty-five (11,225) 300 level students of the three universities selected for this study, while the sample of this study is 370 male and female students selected from the three selected universities. However, there was mortality of nineteen (19) out of three hundred and seventy (370). Therefore, three hundred and fifty one (351) was used for data analysis. This sample is drawn from the entire population of all 300 levels students. The selection conforms to the Krejcie and Morgan (1970) prescription.

Two main instruments were used for this study. The instruments are socio-economic background and test anxiety inventory adapted from Taylor (2002) and Tukur (2015), and students' academic achievement result obtained from the universities. The socio-economic background and test anxiety inventory comprised of three sections. Section A gathered biographic data of the Students, section B with 10 items was on socio-economic status, while section C with 20 items measured test anxiety. The test anxiety scoring guide is as follows: <29 = mildtest anxiety, 30-59 = high test anxiety and 60-100 = severe test anxiety. In order to ascertain the validity of the instrument, the researcher submitted the copies to experts for validation. The instruments were validated by experts in the Department of Educational Psychology and Counselling, Ahmadu Bello University, Zaria. Based on the observation, some modifications were made. The area of modifications includes language interpretation where necessary, clarification of sentences and the likes. All the two instruments were validated to determine the face and content validity, their relevance and appropriateness in the study. The instruments are reliable as both have an appreciable internal consistency. Test anxiety has internal consistency of .804, socio-economic background inventory has internal consistency of .821. The data collected was analysed using descriptive and inferential statistics. Pearson Product Moment Correlation (PPMC) was used to test the hypotheses at 0.05 level of significance.

Presentation of results

Ho1: There is no significant relationship between socio-economic background and test anxiety among undergraduate students in North-West Geopolitical zone, Nigeria.

Table 1: Pearson Product Moment Correlation statistics on the relationship between socio-economic background and test anxiety among undergraduate students in North-West Geopolitical zone, Nigeria

Variables	N	Mean	S.D	r	df	p
Socio-economic background	351	2.9525	.45233	0.566	349	0.003
Text anxiety	351	50.2593	8.92115			

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

From the findings reflected in table 1, Pearson Product Moment Correlation statistics revealed that significant relationship exists between socio-economic background and test anxiety. This is because the p-value of 0.003 is lower than the 0.05 alpha level of significance at a correlation index (r-value) of 0.566. This implies that the higher the level of socio-economic background, the lower the text anxiety. Therefore, the null

hypothesis which states that there is no significant relationship between socio-economic background and test anxiety among undergraduate students in North-West Geopolitical zone, Nigeria, is hereby rejected.

Ho2: There is no significant relationship between socio-economic background and academic achievement among undergraduate students in North-West Geopolitical zone, Nigeria.

Table 2: Pearson Product Moment Correlation statistics on the relationship between socio-economic background and academic achievement among undergraduate students in North-West Geopolitical zone, Nigeria

Variables	N	Mean	S.D	r	df	p
Socio-economic background	351	50.2593	8.92115	0.572	349	0.004
Academic achievement	351	18.7920	2.06869			

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

From the computed results on table 2, Pearson Product Moment Correlation statistics (PPMC) revealed that significant relationship exists between socio-economic background and academic achievement. This is because the p-value of 0.004 is lower than the 0.05 alpha level of significance at a correlation index (r-value) of 0.572. This implies that the higher the level of socio-economic background, the higher their academic achievement. Therefore, the null hypothesis which states that there is no significant relationship between socio-economic background and academic achievement among undergraduate students in North-West Geopolitical zone, Nigeria, is hereby rejected.

Ho3: There is no significant relationship between test anxiety and academic achievement among undergraduate students in North-West Geopolitical zone, Nigeria.

Table 3: Pearson Product Moment Correlation statistics on the relationship between test anxiety and academic achievement among undergraduate students in North-West Geopolitical zone, Nigeria

Variables	N	Mean	S.D	r	df	p
Test anxiety	351	2.9525	.45233	0.496	349	0.004
Academic achievement	351	50.2593	8.92115			

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

From the findings reflected in table 3, Pearson Product Moment Correlation statistics revealed that significant relationship exists between test anxiety and academic achievement. This is because the p-value of 0.004 is lower than the 0.05 alpha level of significance at a correlation index (r-value) of 0.496. This implies that the higher the level of test anxiety, the lower the academic achievement. Therefore, the null hypothesis which states that there is no significant relationship between test anxiety and academic achievement among undergraduate students in North-West Geopolitical zone, Nigeria, is hereby rejected.

Discussion of the findings
One of the findings of this study revealed that significant relationship exists between socio-economic background and test anxiety. This finding is in line with that of Linnenbrink (2007) who reported that there is evidence that negative cognitive process strongly relates to academic achievement. Both anxiety, anger, poor socio-economic status may drop student's ability to recall relevant information or material.

The second finding of this study revealed that significant relationship exists between socio-economic background and academic achievement. This is in line with the finding of Mukherjee (1999) that mothers' education is a strong predictor of students' academic achievement.

The third finding of this study revealed that significant relationship exists between test anxiety and academic achievement. This finding is in line with that of Porto (2013) who reported that test anxiety produces psychological symptoms that build up in students before a test which include restlessness, unusual body movements, difficulty in concentration, insomnia, fatigue, muscles contraction, abdominal pain and tremor.

Conclusion
Based on the result of this study, it is concluded that socio-economic background relates with test anxiety which has influence on their academic achievement; student from high social background perform better in their academic achievement than those from low social background.

Recommendations
1. University management should set up functional psychological testing and counselling centres for treating student with anxiety problem for proper adjustment.
2. Parents should improve on providing financial support to their children thus addressing their financial problem. This enables the students to show more interest in their studies.
3. Parents should improve on their emotional support to their child as this will enable the student to adjust emotionally and socially to the school environment.

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