LEARNERS' CAUSAL ATTRIBUTION, SOCIABILITY AND ACADEMIC PERFORMANCE OF SECONDARY SCHOOL STUDENTS IN CROSS RIVER STATE, NIGERIA

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Abstract

The purpose of the study is to examine the relationship between learners' causal attribution, sociability and academic performance of secondary school students in Cross River State, Nigeria. Two hypotheses were formulated to guide the study. The design for the study was Ex-post facto. For data collection, two research instruments were used: Learners' Characteristics Questionnaire (LCQ) and Mathematics Achievement Test (Mathematics Achievement Test). The reliability estimate using Cronbach Alpha was .75 and .86 respectively. Data collected were analyzed using simple regression analysis. The result of the analysis revealed that there was a significant relationship between Learners' causal attribution, sociability and academic performance in Mathematics. Based on the finding, it was recommended that curriculum activities should be designed to explain to students that the causes they attribute to their success or failure strongly influence their level of motivation, desire to learn and also affect their performance and learning outcome.

Keywords: Learner, attribution, performance, sociability, mathematics

Introduction

Human beings are equipped intellectually, physically, technologically to face their socio-cultural and other problems realistically through the life-long complex process of education. This process liberates human mind from ignorance and mental enslavement. It provides the necessary skills for effective functioning within the environment and for survival, growth and development of the society. Education means different things to different people, perhaps according to varying levels of civilization, exposure and orientation. But generally it involves the well integrated lifelong processes of acquiring and utilizing desirable, functional and useful knowledge, profitable skills, an ethical value systems order to facilitate functional existence and usefulness to oneself and the society. It is vital for equipping individuals with the right quality of knowledge, skills, competencies, values and attitude to enable them function in the e-driven society. (Amalu & Bassey, 2022). This implies that for the learner to be contributors in all ramifications, the individual must possess a measurable level of knowledge, skills, abilities and techniques acquired overtime in a particular area. In recognition of this fact, the secondary school education is programmed to provide a middle manpower that can function well in the society. This is why the learner forms the very purpose of educational activities. Education can e acquired through the formal structure such as the school system. It can also be acquired through the non- formal structure, adult and distance learning.

Academic performance is the extent to which a student, teachers or institutions have attained their short or long term educational goals (Sani, Shaibu and Melaiye, 2020). It is the ability to attain success or failure at end of the term and can also be regarded as the level of schooling that the students have successfully completed (Ukpabio, Ukpong, Ojong & Amalu 2023). Students' academic performance can be influenced by numerous factors including age, gender, teaching skills school facilities, learner' attribution, social interaction, study habits locus of control, self concept, motivation, personality. The aim of the present study was to examine the relationship between some personal characteristics (causal attribution and sociability) of the learner and academic performance.

Learners' causal attribution and sociability are those constructs or traits of the learner that are related to his psychosocial patterns. They cannot be directly seen but can only be inferred (Ukpabio, Ekanem, Ngaji, Ojong & Amalu 2022). Causal attribution is the tendency to assign blames for the reason of an event. it can also be regarded as the process of trying to

determine the causes of peoples' behaviour. According to Weiner (2010) success or failure can be seen as coming either by personal causes (ability and motivation) or situational causes (luck and task difficulty. In a school setting, it can be referred to as the students' attitude of always looking for what is responsible for failure or success. Most often, students attribute their failure to teachers, colleagues and others (external factors) while, at other times, attribute their problems to themselves (internal factors). Sociability is a personality trait that indicates the child's friendliness with strangers and lack of shyness (Tahir, Ghayas and Adil (2012). It is a measure of whether an individual needs a lot of interaction with others or whether he prefers to work on his own most of the time. This implies that learners who are high in sociability love to collaborate and work in group. While those who are low would rather spend their time independently completing tasks or projects.

Various researches have been carried out on the relationship between the learners' causal attribution, sociability and academic performance of students. Ngunu, Kinai, Ndambuki and Mwaura (2019) carried out a study on causal attribution as correlates of secondary school students' academic achievement with 585 participants (315 males and 270 females). The result revealed that causal attribution was significantly correlated to academic achievement. In another study, conducted by Muhammad and Italiz (2012) on causal attribution belief among school students in Pakistan. Descriptive design was adopted with sampling techniques to collect a sample of 396 students from government secondary school of both urban and rural locale. The result showed that students confirmed all causes of potential causes of their success and failures. It was also found that parents and teachers were responsible for their success in school than failure. Obochi (2012) carried study on relationship between self esteem, causal attribution and academic achievement among secondary school students in Bwain Area Council, FCT Abuja. Survey design was used for the study with a total of 191 participants drawn from 5 secondary school in the study area. The result showed that external attribution for success was negatively related to academic achievement, while external attribution for failure was positively related to academic achievement.

Kumar (2012) carried out another study on academic achievement of high school students in relation to certain personality traits such as learners' sociability, self confidence and ambition of high school students were used. Simple random sampling technique was used to select a sample

of 320 high school students. The result revealed that there was a significant positive relationship between sociability, self confidence and ambition behaviour of learner and academic performance. In a similar study, Moyosola (2013) conducted a study on personality characteristics as predictors of academic performance of secondary school students in Ondo State. The correlational type of descriptive research design was used with simple random sampling technique to collect a sample of 398 respondents. The finding revealed among other that sociability as a component significantly relate with academic performance. Research work by Kris, Prathibba Christian and Annette (2014) on impact of sociability on academic performance and retention of natives of Americans Stratified and purposive sampling technique was used to collect a sample of 480 students in the area. Result showed that sociability significantly relate positively with academic performance.

From the above reviewed literature, it can be seen that learners' causal attribution, sociability relate positively with academic performance, this present study may help teachers, students to understand that the way individuals make attributions of others' behaviour and interact with others determine how these behaviours affect both individuals' internal psychological states and external relationship with others. It may also affect their level of performance in academic activities.

Statement of the problem

Mathematics has been made compulsory at the basic and secondary level of education in Nigeria because it is a fundamental subject that is necessary for the understanding of science and technology and also enables students to gain admission into tertiary institutions in Nigeria. Observations and the results of the past years in mathematics have shown that secondary school students in Cross River State have performed poorly in mathematics. This situation has been a source of worry and heart ache to parents, school administrators, government, Non- Governmental organizations(NGOs), teachers and students themselves because the poor performance in mathematics has jeopardize the hope of many students from gaining admission into tertiary institutions. To make sure that performance in mathematics improves, State government has given special allowances to science teachers, has severally organized seminars, workshops, conference for teachers in order to enhance their commitment to the their assignment. Some schools have organized extra lessons in mathematics for students, seminars and workshops for mathematics teachers on the effective method

of teaching mathematics. But performance is still poor despite the efforts of all these stakeholders in education to improve the performance. This was the reason the present study was carried out to find out if causal attribution and learners sociability could be an explanation for the poor academic performance of students in Mathematics.

Purpose of the study

The purpose of the study was to examine the influence of learners' causal attribution and sociability on academic performance of students in Cross River State. Specifically, the study sought to find out whether:

1. Learners' causal attribution relate with academic performance.
2. Learners' sociability relates with academic performance.

Hypotheses

The following hypotheses were formulated to guide the study
1. There is no significant relationship between learners' causal attribution and academic performance in mathematics
2. There is no significant relationship between learners' sociability and academic performance in mathematics.

Methodology

The design used for the study was ex-post facto. The investigation of the nature and magnitude of the relationship among students' learners' causal attribution and sociability and academic performance made the design suitable for this study. And since these students' characteristics have already occurred in the population, the researchers have no control over them. The population of the study comprised all the thirteen (13) public secondary schools in Calabar Municipality of Cross River State. These schools had a total enrolment of five thousand, nine hundred and forty-three (5943) Senior Secondary Two (SS2) students.(SSEB, 2020/2021). Stratified sampling technique was used to select five (5) schools while simple random sampling was used to select two hundred and five students (205). Forty- one (41) students were selected from each of the sampled schools. The sampling technique was considered appropriate because it gives every member of the population an equal opportunity of being selected for the study. The Learners' Characteristics Questionnaire (LCQ) and Mathematics Achievement Test (MAT) were used for data collection. SCQ consist of two sections. Section and Section B. Section A comprised

all personal data of the students such as sex, class size and age. While section B consists of a 20- item four-point Likert-type scale designed to measure students' causal attribution and sociability. Each item requires the students to indicate the frequency of various acts under Strongly Agreed (SA), Agree (A), Disagree (D), Strongly Disagree (SD). For the Mathematics Achievement Test (MAT), a table of content was used to develop 20 items to measure students' academic performance in mathematics. All questions asked were closed ended. This is to facilitate coding and allow for comparison of responses. Face and Content validity of the instrument was carried out by a lecturer in Educational Psychology and test experts in the Department of Educational Foundations, University of Calabar, The reliability of the instrument was carried out using a sample of 50(fifty) students who were not part of the research. Cronbach Alpha procedure was used to measure the degree of consistency of the instruments. Learners' Characteristics Instrument (LCQ) and Mathematics Achievement Test had reliability coefficient of .76 and .85 respectively. With the permission of the school principals, the researchers and two research assistants administered the copies of the questionnaires to the students. All the questionnaires were retrieved at the end of the exercise and then simple regression was employed for data analysis.

Results
Hypothesis one
There is significant relationship between causal attribution and academic performance in mathematics. The independent variable in this hypothesis is causal attribution, while the dependent variable is academic performance in mathematics. To test the hypothesis, simple regression analysis was used and the result as presented in Table 1

Table 1: Simple regression analysis of the relationship between causal attribution and performance in mathematics

Source of variation P-vals	SS	df	MS	F-ratio
Between	21981	1	2198.1	
Within .000	42334.4	204	207.52	10.59
Total	44532.5	2		

$R=0.689$; $AdjR^2 = 0.474$

Table 1 showed that R =0.689 which implies that there is a positive relationship between causal attribution and academic performance in mathematics. That is the higher, the level of causal attribution, the more performance in mathematics by students. A further analysis showed that the Adj R^2 =0.474 which implies that 47.7% variations in the performance in mathematics variable can be using causal attribution. A cursory look at the analysis of variance (ANOVA) table showed that (F=p<.05). Since p(.000) is less than p(.05). This indicates that there is a significant relationship between causal attribution and academic performance in Mathematics. Hence, the null hypothesis is rejected.

Hypothesis Two
There is no significant relationship between learners' sociability and academic performance in mathematics. The independent variable in this hypothesis is learners' sociability, while the independent variable is academic performance in mathematics. To test the hypothesis, simple regression analysis was used and result was presented in Table 2

Table 2: Simple regression analysis of the relationship between learners' sociability and performance in Mathematics

Source of variation	SS	df	MS	F-ratio	P-val
Between	1897.6	1	1897.6		
Within	42621	204	208.92	9.08	.000
Total	44532.5	205			

$R=0.544$; $Adj R^2 =0.295$

Table 2 showed that R= 0.544 which implies that there is a positive relationship between learners' sociability and academic performance in mathematics. That is the higher the level of learners sociability, the more performance in mathematics by the students. A further analysis showed that $AdjR^2 = 0.295$ which implies that 29.5% variations in the performance in mathematics. A cursory look at the analysis of variance (ANOVA) table showed that (F=p<.05). Since p(.000) is less than P(.05). This implies that there is a significant relationship between learners' sociability and academic performance in mathematics. Hence the null hypothesis is rejected.

Discussion of findings

Hypothesis one revealed that there is significant relationship between causal attribution and academic performance of students. Causal attribution for success and failure are determinants of the students' achievement. The attribution a student makes about achievement would affect how much effort he puts in to succeed. Where a student attributes failure to lack of some kind of ability, may not persist in a task that will require effort because, he believes and feels that his efforts will not help him to greater success. On the other hand if a student attributes failure to some other causes such as lack of effort on his own effort will try to put in more effort into it and will be more likely to succeed in the long run. Therefore, the students need to be trained and encouraged to form appropriate attributions that will make him hope and strive in academic performance. This finding is in line with the finding of Weiner (2010) that people have diverse attribution styles or reasons to explain their academic achievement such as locus of casualty (external or internal), the extent to which the individual perceive themselves as being able to influence a particular cause. Then, the consistency in which causal attribution present and influence the result in similar situation.

Hypothesis two revealed that there is a significant relationship between learners' sociability and academic performance in mathematics. Research has shown that students, who are accepted by peers, maintain healthy teacher-student interaction, parent-student interaction and hold responsible leadership position among peers; they are likely to perform well and achieve high in academic engagement in school. Also students who are sociable can be cooperative and may be able to receive aid from others during classroom activities on topics that are difficult to learn and understand as an individual. In contrast, a student who is isolated,

withdrawn and socially rejected may not have the opportunity of learning with others and this may lead to inferiority complex, depression and subsequently disenchantment and disinterest in school activities. This finding is in consonance with finding of Kumar (2012) who reiterated that there is a significant positive relationship between sociability, self confidence, ambitious behaviour of learners and their academic performance.

Conclusion

It was concluded that students' characteristics such as causal attribution and sociability influence their academic performance. Therefore the students need to be trained and encouraged to form appropriate attributions and sociability that will make them succeed in their academic endeavour.

Recommendations

Based on the findings, the following recommendations were made:
1. Teachers and administrators should ensure that a healthy social climate is maintained in school. This will help learners interact freely and obtain help when needed from teachers and peers.
2. Curriculum activities should be designed to explain to students that causes they attribute their success or failure to strongly influence their level of motivation, desire to learn, and also affect their performance and learning outcome.
3. Teachers in order to make success possible for the students can reward their efforts and individualize goals.

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