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Research Article

Relationship between Emotional Disorder and Academic Achievement for Sustainable Quality Education in Public Senior Secondary Schools in North Central Zone Nigeria

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Abstract

The study examined the relationship between emotional disorder and academic achievement for sustainable quality education in senior secondary schools in North Central Zone, Nigeria. Correlation research design was adopted for the study. The population of the study consisted of 205,073 SS 2 students from public senior secondary school in six states of North Central zone and from it a sample size of 1530 respondents was selected for the study using the multistage sampling technique. The instruments used to collect data were Emotional Disorder questioner" (EDQ) Mathematics Achievement Test (MAT) and English Language Achievement Test (ELAT). The three instruments were validated by two experts, which gave a logical validity index of 0.83 for EDQ, 0.86 for MAT and 0.82 for ELAT. The reliability coefficient yielded 0.82 for EDQ, 0.78 for MAT and 0.77 for ELAT. Pearson Product Moment Correlation Coefficient (PPMCC) was used to answer the research questions and test the hypotheses at 0.05 level of significance. Findings from the study indicated there is a significant relationship between anxiety, depression and academic achievement for sustainable quality education in Mathematics and English language. Based on findings, it was concluded that emotional disorder had a significant relationship with students' achievement in Mathematics and English Language for sustainable quality education. It was therefore recommended among many that school education stakeholders should pay close attention to the emotional needs of students, for classroom learning to be desirable and enjoyable to foster academic excellence and sustained quality education.

Keywords: Emotional disorder, academic achievement, senior secondary students.

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Introduction

Education aims to develop learners intellectually, socially and emotionally. For this to occur effectively, schools should provide safe, supportive and inclusive environments that enable students to participate fully in learning. Education, in the present day context, is possibly the only most significant means for individuals to develop his potentials and personal endowments, build capability levels, overcome constraints and, in the process, enlarge their available set of opportunities and choices for a sustained improvement and well-being [1]. Environments that threaten students' physical or psychological safety may negatively affect their classroom participation and learning and achievement.

[2] sees academic achievement as learners' ability to acquire, retain, and demonstrate knowledge and skills. Academic achievement reflects the extent to which students attain prescribed learning objectives. Mathematics and English Language are particularly important in secondary education because they develop reasoning, communication and problem-solving skills. However, concerns about students' achievement in these subjects persist, making it necessary to examine factors that may influence learning outcomes. One such factor is students' emotional well-being. Anxiety, fear and other emotional difficulties may reduce concentration, participation and effective engagement in classroom activities.

Emotional disorder refers to disturbances in emotional functioning arising from stressful experiences or perceived threats to safety and well-being. Anxiety and depression are important forms of emotional disorder among students. Anxiety can interfere with concentration and academic functioning and has been associated with academic failure [3] while depression, characterized by sadness, helplessness and diminished hope, may reduce students' motivation and learning outcomes [4].

Empirical studies support the relationship between emotional conditions and academic performance. [5] found a significant relationship between emotional instability and academic performance among students in Colleges of Agriculture and related disciplines in Plateau State, Nigeria. Similarly, [6] reported a significant relationship between depression symptoms and academic performance among first-year university students in South Africa. However, evidence specifically relating anxiety and depression to academic achievement among senior secondary school students in North Central Nigeria remains limited.

Students' emotional well-being is also central to sustainable quality education. Safe, inclusive and supportive learning environments are essential for quality education [7], while Sustainable Development Goal 4 emphasizes inclusive and equitable quality education [8]. Anxiety and depression can affect students' schoolwork, attendance, participation and academic performance [9]. Addressing these challenges is therefore important for improving learning outcomes and promoting quality education [10].

Against this background, this study investigated the relationship between emotional disorder and academic achievement in Mathematics and English Language among public senior secondary school students in North Central Nigeria. Specifically, the study examined the relationship between anxiety and academic achievement in Mathematics and English Language, and depression and academic achievement in Mathematics and English Language among the students.

Research Questions

The following research questions guided the study

1. What is the relationship between anxiety and academic achievement in mathematics and English language for sustainable quality education in public senior secondary schools in North central zone, Nigeria?

2. What is the relationship between depression and academic achievement in mathematics and English language for sustainable quality education in public senior secondary schools in North central zone, Nigeria?

Hypotheses

The following hypotheses formulated were tested at 0.05 level of significance.

1. There is no significant relationship between anxiety and academic achievement in mathematics and English language for sustainable quality education in public senior secondary schools in North central zone, Nigeria.

2. There is no significant relationship between depression and academic achievement in mathematics and English language for sustainable quality education in public senior secondary schools in North central zone, Nigeria.

Theoretical Framework

The Cognitive Theory of Mental Disorder was developed primarily by Aaron T. Beck in the 1960s. The theory proposes that mental disorders are largely caused by faulty, irrational, or distorted patterns of thinking rather than by external events themselves. According to the theory, it is not situations that determine how people feel and behave, but the way they interpret those situations. According to the theory, thoughts influence emotions and behavior, negative or irrational thoughts can lead to emotional distress and maladaptive behavior, mental disorders result from cognitive distortions and people suffering from disorders such as depression or anxiety often have unrealistic beliefs and negative thinking patterns. The cognitive theory has important implications for education and learning and by promoting positive thinking and enhancing academic achievement.

Methodology

The study adopted a correlation research design. The population for this study comprised of all 205,073 SSII students in public secondary schools from the six (6) states in North Central, Nigeria; namely: Benue, Kogi, Kwara, Niger, Plateau, and Nasarawa. Multistage sampling procedure was adopted for the study. Simple random sampling technique was employed in selecting samples of 3 schools across three randomly selected states while a sample size of 1530 respondents was selected for the study using the Research Advisors Table [11] based on the 95% confidence interval. Three self-developed instruments were used to collect data for the study. The instruments include: Emotional Disorder Questionnaire (EDQ), Mathematics Achievement Test (M;AT) and English Language Achievement Test (ELAT). The instruments were validated by the experts and yielded logical validity indices of 0.83 for SCAEDQ, 0.86, MAT and 0.82 for ELAT. Cronbach Alpha was used to compute the reliability coefficient of the instruments and results yielded 0.84 for SCAEDQ, 0.78 for MAT and 0.77 for ELAT. Pearson Product Moment Correlation Coefficient (PPMCC) was analyze the data collected.

Results and Discussion

Research Questions 1: What is the relationship between anxiety and academic achievement in mathematics and English language for sustainable quality education in public senior secondary schools in North central zone, Nigeria?

Table 1. Relationship between Anxiety and Academic Achievement for Sustainable Quality Education in Public Senior Secondary Schools in North Central zone, Nigeria.

Variables	**N**	Mean	**Std. Dev.**	**r**
Anxiety	1530	25.26	6.42	0.851
Academic Achievement	1530	51.76	4.06	

Table 1 shows the relationship between anxiety and academic achievement for sustainable quality education in public senior secondary schools in North Central zone, Nigeria. The result reveals that anxiety had (Mean = 25.26) and academic achievement had (Mean = 51.76). The result revealed a very high correlation coefficient value (r = 0.851) between anxiety and students' academic achievement. This implies that there is a positively strong relationship between anxiety and academic achievement for sustainable quality education in public senior secondary schools in North Central Nigeria.

Research Questions 2: What is the relationship between depression and academic achievement in mathematics and English language for sustainable quality education in public senior secondary schools in North central zone, Nigeria?

Table 2. Relationship between Depression and Academic Achievement sustainable quality education in Public senior secondary schools in North Central zone, Nigeria**.**

Variables	**N**	Mean	**Std. Dev.**	**r**
Depression	1530	26.88	5.42	.249
Academic Achievement	1530	51.76	4.06	

Table 2 shows the relationship between depression and academic achievement for sustainable quality education in public senior secondary schools in North Central zone, Nigeria. The result reveals that depression had (Mean = 26.88) and academic achievement had (Mean = 51.76). The result revealed a low correlation coefficient value (r = 0.249) between depression and students' academic achievement. This implies that there is a positive weak relationship between depression and academic achievement for sustainable quality education in public senior secondary schools in North Central Nigeria.

Testing of the Hypotheses

Hypothesis 1: There is no significant relationship between anxiety and academic achievement for sustainable quality education in Mathematics and English language in public senior secondary schools of North central zone, Nigeria.

Table 3. Significance of Relationship between Anxiety and academic achievement in Public Senior Secondary School for Sustainable Quality Education in North central zone, Nigeria.

Variables	**N**	**r**	**r^2**	**Sig.(2-tailed)**	**Decision**
Anxiety*	1530	0.85	0.724	.005	Reject H_{01}
Academic Achievement	1530				

Level of significance Alpha (α) < 0.05 shows significant relationship

Table 3 shows that there is a significant relationship between anxiety and academic achievement in Mathematics and English language for sustainable quality education in public senior secondary schools in North central zone, Nigeria and the result is given as: N = 1530, r = .851, (p-value = -.005). The result further shows the coefficient of determination (r^2) = .724, which indicates that 72.4% of anxiety is accounted for, while 27.6% of the variation between anxiety and the academic achievement is not accounted for in the study. The formulated hypothesis was therefore rejected since the p-value of 0.005 is less than 0.05.

Hypothesis 2: There is no significant relationship between depression and academic achievement in Mathematics and English language in public senior secondary schools in North central zone, Nigeria.

Table 4. Significance of Relationship between Depression and Academic Achievement for sustainable quality education in Public Senior Secondary Schools in North central zone, Nigeria.

Variables	N	r	r^2	Sig.(2-tailed)	Decision
Depression*	1530	0.249	.062	.029	Reject H_{02}
Academic Achievement	1530				

Level of significance Alpha (α) < 0.05 shows significant relationship

Table 4 shows that there is a significant relationship between depression and academic achievement for sustainable quality education in Mathematics and English language in public senior secondary schools of North central zone, Nigeria. The result which is given as: N = 1530, r = .249, (p-value = .029), and the coefficient of determination (r^2) = .062, indicates that only 6.2% variation of depression is accounted for, while 93.8% of the variation between depression and the academic achievement is not accounted in the study. The formulated hypothesis was therefore rejected since the p-value of 0.029 is less than 0.05.

Discussion of Findings

Findings from the study on hypothesis one revealed that there is a significant relationship between anxiety and academic achievement for in Mathematics and English language for sustainable quality education in public senior secondary schools of North central zone, Nigeria. The findings of this study agreed with Eremie, Bethel and Wagner [2] which showed there is a significant influence of anxiety and depression on academic achievement in public senior secondary schools in North central zone, Nigeria.

Findings from hypothesis two revealed that there is a significant relationship between depression and academic achievement for sustainable quality education in Mathematics and English language in public senior secondary schools of North central zone, Nigeria. Furthermore, the finding is in line with Eremie, Bethel and Wagner [2] which also revealed there was a significant relationship between depression symptoms and academic performance among first year undergraduate students at a South African university.

Conclusion

The researcher concludes from the findings of this study that learning environments devoid of anxiety and depression enhances students' academic achievement thereby improving quality education in secondary schools. Hence, emotional disorder has a significant relationship with students' achievement in

Mathematics and English Language for sustainable quality education in North Central, Nigeria. To enhance student emotional stability in order to achieve excellent academic result, the school management and teachers as well as parent need to take and see student as a psychological being and therefore be mindful of their relationship with these young mind. Learners with anxiety disorder should be given the necessary support. Parents and the school should collaborate in the effort of monitoring the emotions of learners with symptoms of anxiety so that they can be properly guided through programs and seminars which is psychological impactful leading to improved academic achievement and quality education. It also recommended that learners who exhibit traits of depression should be subjected to a series of active learning and extra-curricular activities that can help enhance their energy level for the purpose of enhancing their academic achievement and sustainable quality of education.

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