

## TEST ANXIETY AND SELF-ESTEEM AS CORRELATES OF ACADEMIC ACHIEVEMENT AMONG STUDENTS OF NNAMDI AZIKIWE UNIVERSITY, AWKA

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### *Abstract*

*This study investigated test anxiety and self-esteem as correlates of academic achievement among students of Nnamdi Azikiwe University, Awka. The objectives are to assess the levels of test anxiety and self-esteem among university students and to explore the relationship between these psychological factors and academic achievement. A correlational research design was employed, focusing on establishing relationships between test anxiety, self-esteem, and academic achievement. The study population comprises 1036 final year students of the Faculty of Education, Nnamdi Azikiwe University, Awka for 2021/ 2022 academic session. Sample of the study consist of 200 students drawn through simple random sampling from the eight departments in the faculty. Data was collected using validated instruments and exam scores. The collected data were analysed using descriptive and inferential statistics. The major findings are that students of Nnamdi Azikiwe University have high levels of test anxiety but low self-esteem. While test anxiety has an inverse relationship with academic achievement, self-esteem has a strong direct relationship with academic achievement. These findings have significant implications for students, educators, government and policymakers, including university management.*

**Keywords:** *Test anxiety, Self-esteem, Academic achievement*

## **Introduction**

The concept of anxiety has been extensively studied by educators and psychologists, resulting in a range of definitions. Anxiety is a mental condition in people which is responsible for individual reactions in the face of a circumstance. According to Bada and Idoko (2021), anxiety is an unpleasant feeling characterized by fear or apprehension. The authors assert that anxiety arises when an individual is worried and concerned about an issue, and that it is a universal emotion that everyone experiences at some point in their lives. Supporting this Clark & Beck (2023), posited that anxiety entails several disorders that may cause nervousness, apprehension, fear and worry. This is because anxiety may make people feel tired and irritable; they may have symptoms like dry mouth, trembling, fainting episodes, shortness of breath, stomach cramps or diarrhea. According to Verhoeven et al., (2023), anxiety disorders have a significant impact on individuals' mental and physical health, resulting in a high utilization of healthcare services and a substantial economic burden for society due to their effect on work attendance rates. Adwas, Jbireal, and Azab (2019) stated that anxiety disorders are the most prevalent mental disorders. These disorders are characterized by disturbances in mood, thinking, behavior, and physiological activity. The disorders encompass panic disorder, agoraphobia, generalized anxiety disorder, specific phobia, social phobia, obsessive-compulsive disorder, acute stress disorder, and post-traumatic stress disorder. The authors conclude that although anxiety about perceived threats is a natural human response that most people experience, if such thoughts begin to negatively impact an individual's daily life, they may be indicative of an anxiety disorder. Anxiety could be seen in all facets of human endeavour including academics. In education, it could be seen as test anxiety. Test anxiety which is also called examination anxiety in research literature is an uneasiness or apprehension experienced before, during and after examination because of concern, worry or fear of uncertainty. It can be defined as a set of phenomenological, physiological and behavioral responses that accompany concern about possible negative consequences or failure on an examination or similar evaluative situation. Test anxiety is a very serious issue that should not be overlooked among students if a successful evaluation has to be achieved. If test anxiety is not properly and timely addressed, it can have many unprecedented, serious, and long-lasting consequences on students' ability to write examinations confidently by themselves. However, test anxiety is not entirely bad; it is needed to motivate and help the students to stay mentally and physically alert (Dowker & Sheridan, 2022). In fact a low level of test anxiety is normal and necessary among the students in order to maintain focus and to galvanize them into action in preparing, plotting and perfecting strategies that will guarantee optimum success in the examinations. Despite these positive assertions, Jerrim (2023) was of the opinion that if test anxiety is not properly looked into, it may have very serious and long lasting implications on students' academic activities including academic achievement which may lead to low self-esteem..

Self-esteem on the other hand, is the decision made by an individual as an attitude towards the self. Self-esteem is a very important factor in human behaviour which is the focus of academic and popular circles. According to Miller (2024), self-esteem is one of the most popular topics in modern psychology. It encompasses beliefs about oneself as well as emotional status such as triumph, despair, pride and shame. Newton and Horn (2023) posited that self-esteem is an overall assessment of the value of one's self or self-worth and this provides an overview of the history, measurement, outcomes, functions, and development of self-esteem. Reitz (2022)

defined self-esteem as what we think about the self. It is a positive or negative evaluation of the self. Self-esteem is attractive as a social and psychological construct because researchers have conceptualized it as an influential predictor of outcomes such as academic achievement (Alghamdi et al., 2023). Self-esteem can be seen as the bridge between success and failure; the right attitude to succeed at work or academics and how one values oneself. That is, it makes one's thoughts to be either positive or negative. Self-esteem is created by the way one values oneself, which means that it does not come from anything that exists outside the mind like friends, teachers, family or from personal achievements but from the value you place on yourself. This means in effect that a student can have supportive parents, teachers and friends who praise and tell them that they are intelligent and brilliant but that student could still call himself a loser as a result of low self-esteem. In general, high self-esteem helps individuals to view themselves as active and capable persons to promote changes through effort and set higher goals which may ignite them to learn new things. Interestingly, numerous researchers have demonstrated that the best way to improve students' academic achievement is to increase their self-esteem (Acosta-Gonzaga, 2023; Okafor et al., 2018; Santos et al., 2021). Could this be said about Nnamdi Azikiwe University students?

Kumar et al., (2021) are of the opinion that the perspective-oriented nature of academic achievement hinders a comprehensive definition of the term. Depending on the context, some may view completing courses and gaining knowledge and skills as academic achievement, while others may see it as the ability to secure a successful career. Overall, the ultimate goal of the education system worldwide is to instill meaningful change in students, including psychological, affective, cognitive, and behavioural development. Therefore, Kumar et al. defined academic achievement as gaining knowledge, acquiring skills and competencies, achieving high grades and other academic milestones, securing a progressive career, and demonstrating intention and persistence towards education. Gómez-López, et al., (2020) posited that academic achievement is the ability to study and remember facts and being able to communicate your knowledge verbally or on a paper. In other words, it reflects how students deal with their studies and how they cope with or accomplish different tasks given to them by their teachers. Most educational institutions regularly use academic achievement tests to make decisions about their students, therefore academic achievement defines whether one can take part in higher education and based on the educational degrees one attains, influence one's vocational career after education. Besides the relevance for an individual's academic achievement is of utmost importance for the wealth of a nation and its prosperity, hence this study is set to determine the relationship among test anxiety, self-esteem, and students' academic achievement among students of Nnamdi Azikiwe University, Awka.

### **Statement of the Problem**

In Nigeria and every other parts of the world today, performance at examination which is measured by academic achievement is the benchmark for measuring, judging and recruiting employees, and for assessing students for advancement and the awarding of certificates. It is little wonder then that many students of higher institutions have anxiety especially during test and this may undesirably affect their performance. Much emphasis is laid on examination in schools and by job-offering agents of the society which makes students become convinced that sustenance of life depends on their performance in tests or examinations. They therefore develop the attitude of panic of failures. Because of this failure, they engage themselves in cheating during examinations, some even become involved in faking certificates. In tertiary institutions,

clinical symptoms of test anxiety are made manifest when students start having abnormal rapid heartbeats, sweating palms or body, shivering and urinating on their selves during examination. Also, the problem of inferiority complex among students is becoming alarming and upsetting; some do not have trust in themselves or what they can do. Such students go on and blame themselves, their parents, lecturers and society for their failure which may be as a result of them not believing in themselves and not trying to reinforce their self-esteem. This pattern of life may negatively affect students' academic development. The present study therefore considered it necessary to find out whether test anxiety and self-esteem have a relationship with students' academic achievement. This study will give answer to the question; Is there a relationship between test anxiety; self-esteem; and academic achievement?

The purpose or objective of this study is to determine if test anxiety and self-esteem correlate with students' academic achievement in Nnamdi Azikiwe University Awka. To achieve this objective, the following research questions guided the study:

1. What is the level of test anxiety among Nnamdi Azikiwe University students?
2. What is the level of Self-esteem among Nnamdi Azikiwe University students?

### **Hypotheses**

Ho 1: There is no significant relationship between test anxiety and academic achievement among students of Nnamdi Azikiwe University.

Ho 2: There is no significant relationship between self-esteem and academic achievement among students of Nnamdi Azikiwe University.

### **Methods**

The design of this study is correlation research design because it tends to determine the relationship between test anxiety; self-esteem and academic achievement. The study was carried out in Nnamdi Azikiwe University, Awka-Anambra state, which is one of the federal universities in the southeast geopolitical zones of Nigeria. The population of the study was 1036 final year students of the Faculty of Education, Nnamdi Azikiwe University, Awka for 2023/2024 academic session. Sample of the study consisted 200 students of the faculty of education in the said year. Twenty-five students were drawn through simple random sampling from 8 departments in the faculty making a total of 200 students.

The instruments for data collection were adapted versions of Spielberger Test Anxiety Inventory (1980) which consists of 9 items, and Rosenberg Self-esteem Scale (1965) which consists of 9 items too. Both instruments use a four point rating scale of Very High, High, Low and Very Low and had the value of 4,3,2,1 respectively assigned to the response options. Students' EDU 331 (Educational Research and Statistics) result for 2022/2023 academic session was used to obtain the academic achievement scores. The reliability of the scales upon test using Cronbach's Alpha provided a measure of internal consistency on a coefficient of 0.89 and 0.82 respectively which is deemed acceptable and reliable for this study.

The questionnaire was administered using the face to face method which enhances collection on the spot with a record of 100% return. Students' achievement scores were got from the result of EDU 331: Educational Research and Statistics (2022/2023session) which is a first semester third year course from Department of Educational Foundations. The research questions were answered using mean scores. Mean scores of 2.50 and above depicted "High level" while Mean scores

below 2.50 implied “Low level”. The hypotheses were tested using Pearson Product Moment Correlation Coefficient. Based on the exhibited relationships between the independent and dependent variables, the correlation coefficients obtained from the data analysis were classified thus:

± 0.70 to +1.00 represents high correlation, ±0.30 to ±0.69 represents moderate correlation,

±0.29 and below represent low correlation

### Results

The results obtained from data analysis were presented in tables below according to research questions

Research Question One: What is the level of test anxiety among Nnamdi Azikiwe University Students?

**Table 1: Mean Responses on the Level of Test Anxiety Among Nnamdi Azikiwe University Students**

SN	Levels of Test anxiety	VH	H	L	VL	No Respondents	of Mean	Remark
1	I often experience nervousness or tension before a test	71 284	58 174	38 76	33 33	200	2.84	High
2	I feel confident about my ability to perform well on tests	34 136	45 135	48 96	73 73	200	2.20	Low
3	Test Situations frequently make me anxious	78 312	76 228	29 58	17 17	200	3.10	High
4	I actively seek help or use resources to cope with test anxiety	84 336	60 180	35 70	21 21	200	3.04	High

5	My anxiety significantly impacts my academic achievement	70 280	68 204	45 90	17 17	200	2.96	High
6	I worry about the outcome of exams	99 396	71 213	13 26	17 17	200	3.26	High
7	I believe my test anxiety is manageable	85 340	69 207	33 66	13 13	200	3.13	High
8	I find it challenging to concentrate during test due to anxiety	110 440	80 240	10 20	0 0	200	3.50	High
9	I have developed effective strategies to reduce test anxiety	39 156	44 132	61 122	56 56	200	2.33	Low

*Source: Fieldwork, 2023*

Table 1 reveals that Item 2 and 9 showed mean scores falling below the established criterion of 2.50, indicating respondents' disagreement with the statement. The statements are positive about test anxiety but obtaining low mean score in such means that the items are not helping students to overcome text anxiety. Conversely, Items 1, 3, 4, 5, 6, 7, and 8 garnered mean scores surpassing the mean criterion of 2.50; indicating respondents' agreement with these items. The outcome demonstrates that respondents concurred that test anxiety induces nervousness, tension, and anxious situations, and it also impacts the outcomes of exams among Nnamdi Azikiwe University students. Therefore, Nnamdi Azikiwe University students experience high level of test anxiety.

Research Question 2: What is the level of self-esteem among Nnamdi Azikiwe University Students?

**Table 2: Mean responses on the level of self-esteem among Nnamdi Azikiwe University Students**

SN	Levels of Self-Esteem	SA	A	D	SD	No Respondents	of Mean	Remark
1	I generally have high self-esteem.	33 132	52 156	72 144	43 43	200	2.38	Disagreed
2	I feel confident about my abilities and achievements	37 148	34 102	49 98	80 80	200	2.14	Disagreed
3	External factors negatively impact my self-esteem	97 388	73 219	19 38	11 11	200	3.28	Agreed
4	I have experienced a positive change in my self-esteem	38 152	20 60	63 126	79 79	200	2.09	Disagreed
5	I believe my self-esteem negatively influence my academic achievement	78 312	65 195	29 58	27	200	2.96	Agreed
6	Criticism or negative feedback greatly affect my self-esteem	97 388	67 201	24 48	12	200	3.25	Agreed
7	I often compare myself to others to access my self-worth	86 344	51 153	40 80	23	200	3.00	Agreed
8	I actively work on improving my self-esteem	32 128	27 81	96 192	45	200	2.23	Disagreed
9	I feel satisfied with my overall self-esteem	26 104	23 69	98 196	53	200	2.11	Disagreed

Source: *Fieldwork, 2023*

Table 2 indicates that items 3, 5, 6, and 7 achieved mean scores surpassing the established criterion of 2.50, indicating respondents' alignment with the statements. Looking critically at the items, one may discover that those items are negatively cued; therefore agreement indicates low self esteem. On the other hand, items 1, 2, 4, 8 and 9 have mean scores below the benchmark of 2.50. These 5 items are positively cued and disagreement also shows low self esteem.

Ho 1: There is no significant relationship between test anxiety and academic achievement?

**Table 3: Correlation Analysis Between Test Anxiety and Academic Achievement Among Nnamdi Azikiwe University Students (N=200)**

Table 3 shows a Pearson correlation coefficient (r) of -.726 which reveals a strong negative **Correlations**

		SELF-ESTEEM	ACADEMIC ACHIEVEMENT
SELF-ESTEEM	Pearson Correlation	1	-.726**
	Sig. (2-tailed)		.000
	N	200	200
ACADEMIC ACHIEVEMENT	Pearson Correlation	-.726**	1
	Sig. (2-tailed)	.000	
	N	200	200

\*\* . Correlation is significant at the 0.01 level (2-tailed)

correlation between test anxiety levels and academic achievement among Nnamdi Azikiwe University students. This means that as level of test anxiety increases, academic achievement of students lowers. The coefficient of determination  $r^2 = (.726)^2 = .53$ . This means that 53% of the variation in achievement could be explained by test anxiety levels. The remaining 47% could be explained by other factors other than test anxiety. Moreover, at  $(r(200) = -.726, p < .05)$ , there is a significant relationship between test anxiety and academic achievement.

Ho 2: There is no significant relationship between self-esteem and academic achievement?

**Table 4: Correlation Analysis Between Self-esteem and Academic achievement Among Nnamdi Azikiwe University Students (N=200)**

**Correlations**

		SELF-ESTEEM	ACADEMIC ACHIEVEMENT
SELF-ESTEEM	Pearson Correlation	1	.747**
	Sig. (2-tailed)		.000
	N	200	200
ACADEMIC ACHIEVEMENT	Pearson Correlation	.747**	1
	Sig. (2-tailed)	.000	
	N	200	200

\*\* . Correlation is significant at the 0.01 level (2-tailed)

Result on Table 4 shows a Pearson correlation coefficient of 0.747 suggesting a high positive relationship between self-esteem and academic achievement among Nnamdi Azikiwe University students. This indicates that there is a strong and positive association between self-esteem levels and academic achievement. This means that as level of students' self-esteem increases, the academic achievement of students increase too. The coefficient of determination  $r^2 = (.747)^2 = .745$ . means that approximately 75% of the variation in academic achievement could be

explained by self-esteem levels. The remaining 25% could be explained by other factors other than self-esteem. Furthermore, at  $(r(200) = .747, p < .05)$ , there is a significant relationship between self-esteem and academic achievement.

## Discussion

The concepts of test anxiety and self-esteem in relation to academic performance have been extensively studied by educators and psychologists. The relationship between these constructs and academic achievement cannot be overemphasized. The findings indicate that Nnamdi Azikiwe University students generally experience elevated levels of test anxiety. This is evident from the mean scores surpassing the criterion of 2.50 for all items related to test anxiety in the survey. Specifically, respondents acknowledged experiencing nervousness, tension, anxious situations, worries about exam outcomes, difficulty concentrating during tests, and the impact of test anxiety on academic achievement. These results support the assertion of Archbell and Coplan, (2022) that test anxiety is a prevalent issue among students at the university. However, Chancon-Lopez and Maeson-Broncana (2023) were of the opinion that low self-esteem is not a barrier to university students' performance in artistic activities.

The data suggest that Nnamdi Azikiwe University students exhibit generally low levels of self-esteem. This is supported by most mean scores being lower than the established criterion of 2.50. For most items related to self-esteem in the survey, respondents indicated low levels of self-esteem, lack of confidence in their abilities and achievements, not being able to be resilient to criticism, and inactive efforts towards improving self-esteem. These findings highlight the negative self-perception and lack of confidence among students at the university. This finding supports the study by Matovu (2020) who discovered low self-efficacy among undergraduate students.

The findings of this study underscore the intricate relationship between test anxiety and academic achievement among students at Nnamdi Azikiwe University. The significant relationship observed highlights the detrimental impact of heightened levels of test anxiety on students' ability to perform well on assessments. Previous researches (Akhdan & Aminatun, 2022; Dawood et al., 2016; Tan & Pang, 2023) have consistently shown that increased test anxiety can hinder students' academic success by impairing their cognitive functioning and ability to recall information during exams. However, the findings of this study contrasted with that of Jerrim (2023) who found no clear relationship between test anxiety and exam performance.

The findings of the study reveal a significant, high and positive correlation between self-esteem and academic achievement. Students with higher self-esteem demonstrate greater resilience in the face of academic challenges and exhibit higher levels of motivation and persistence, ultimately leading to better performance. This was in line with the findings of Gultom and Oktaviani (2022) whose result showed that students' level of self-esteem has an impact on their English proficiency test scores. The result was also in consonance with that of Utami and Wahyudin (2022), whose result showed that there is a significant relationship between undergraduates' self-esteem and their achievement in proficiency test at teknocrat University. By addressing students' self-esteem and fostering a positive self-image, educators can create a supportive learning environment that promotes academic success and student well-being.

## Conclusion

This study delved into the intricate relationship between test anxiety, self-esteem, and academic achievement among students at Nnamdi Azikiwe University. The findings highlight

significant associations that underscore the importance of addressing psychological factors to promote student success in higher education settings.

Firstly, the study reaffirms the detrimental impact of heightened levels of test anxiety on students' academic achievement. The observed relationship emphasizes the need for interventions aimed at reducing test anxiety to enhance academic outcomes. Secondly, the high and positive relationship between self-esteem and test anxiety emerges as another key finding. Fostering a positive self-image and self-efficacy among students is identified as a potential protective factor against test anxiety, thereby improving their academic achievement. Thus, it was concluded based on the findings that undergraduates of Nnamdi Azikiwe University experience high level of test anxiety and low self-esteem. Furthermore, there is an inverse relationship between the students' test anxiety and their academic achievement; and a strong positive relationship between the students' self-esteem and their academic achievement.

### **Recommendations**

Based on the findings of this study, the following recommendations are proposed:

1. The school management should implement evidence-based interventions to reduce test anxiety and promote self-esteem among students.
2. Government should provide professional development opportunities for educators to enhance their understanding of student mental health and well-being. This can be achieved by employing more career counselors/ psychologists that will be attached to each department in the school.
3. Government should advocate for policies that prioritize students' well-being and holistic development in the academic setting.

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