Relationship between Self-Esteem and Academic Achievement of Senior Secondary School Students in North-Central, Nigeria.

Abstract

This study investigated the relationship between self-esteem and academic achievement of senior secondary school students in North-Central, Nigeria. The research design adopted for the study was correlational design. A total of 101,467 Senior secondary school two (SS2) students comprises the population. Glenn (2012) sample scale was used in drawing the sample of 383 students. A Self-structured questionnaire was used to collect data from the respondents. The data collected was subjected to statistical analysis based on the three null hypotheses. A multiple correlation regression, an analysis of variance, t- test and Pearson correlation coefficient was used in analysing the hypotheses. The findings of the study revealed that, there exists significant relationship between students' academic achievement and their self-esteem regardless of their gender; male or female in the secondary schools in North central, Nigeria. The study also shows there is no significant difference in self-esteem between male and female senior secondary school students. However, the study further discovered that, the student show significance difference in self-esteem with respect to age. It was recommended that; students should develop a strong sense of self-esteem from an early stage and maintain it throughout their academic journey. Also, parents and teachers should help train the students on how to develop positive views about themselves and their academic work and should always believe that they will perform well in their academic challenges irrespective of their gender. Nevertheless, a policy that mandates Nigeria Education Service to undertake a structured professional development programme for senior secondary school teachers should be instituted.

Keywords: *Self-Esteem, Academic Achievement, Relationship.*

1. INTRODUCTION

Students are of utmost importance in any educational institute. As a result, students' academic achievement has become a matter of interest to all educational stakeholders in the country. Students attend school to learn content that is conveyed to them by their instructors however, some students are more successful at attaining academic achievement than others. The reason for this variance may not be far fetch from the fact that students' academic achievement is the result of interaction between the various factors that influence it.

Self-esteem is self-assessment; it is a perception and evaluation that can be either positive or negative and pleasant or unpleasant. A person who has positive thoughts about their qualities and characteristics has high self-esteem. On the other hand, a person with negative thoughts about their qualities and characteristics has low self-esteem (Olivine, 2024). However, in this study, self-esteem is how we value ourselves; it is the students' overall sense of personal importance or feelings of personal value and abilities.

Educators, parents and others have focused efforts on boosting their wards' self-esteem, on the assumption that high self-esteem will cause many positive outcomes and benefits

especially good academic achievement in schools. According to self-esteem expert Morris Rosenberg, self-esteem is described as an attitude which could be favourable or unfavourable towards his own self (Ackerman, 2018). Nuryana, Xu and Lu (2023) explains that self-esteem is important for self-confidence needed by children to engage and succeed in the improvement of learning achievement, especially in specific learning domains.

According to Thompson, 2015, our self-esteem develops and evolves throughout our lives as we build an image of ourselves through our experiences with different people and activities. Experiences during our childhood play a particular large role in the shaping of our basic self-esteem and our emotional competence. However, the development of emotional competencies is a lifelong process that goes hand in hand with physical, cognitive, and social development. To Nwokolo and Oguzie, (2021), people's self-esteem can be high or low. Students with high self-esteem tend to feel positive about themselves and about life in general, and this in turn makes them to handle life challenges better. People who have high self-esteem focus on growth and improvement, whereas, people with low self-esteem focus on not making mistakes in life. A person with high self-esteem perceives himself as a better, more capable and of greater worth than someone with low self-esteem. Indeed, just as individuals differ, their levels of self-esteem also differ. Actually, high self-esteem is very important in students' academic and socio-personal lives. Students with high self-esteem usually have greater confidence in their capabilities, which can lead to increased motivation and persistence in their studies.

A study carried out by Oguzie, Ordua, Nnadi and Boulife (2023) disclosed that low self-esteem can emanate from child abuse and punishment, peer relationship, parenting style, academic achievement, financial and social position, negligence, comparison with others, preferential treatment, excessive criticism, expectations from parents, physical appearance, bullying, unemployment, ill health and negative experience. Following from above, it is obvious that oguzie et al., (2023) research has significantly pointed the need for a good healthy school environment as a major influencer of students' self-esteem and eventual performance in the school. This is also echoed by Gidado (2000) and Gidado et al (2023), who in separate research efforts revealed that the psychological environment of a school has a significant effect on the individual attitudes and achievement with $p > 0.05$.

Academic achievement is considered as a key criterion to judge one's total potentialities and capabilities. Therefore, it is more pressing for the students to have high academic achievement. The term achievement refers to the degree or the level of success attainted in some specific school tasks especially scholastic performances, in this sense academic achievement means the attained ability to perform academic tasks, which can be general or specific to a given subjects or matter (Joshi and Srivastava, in Ken, 2017). Operationally, academic achievement is a students' attainment obtained by effort. Here, the academic achievement of the student is measured by Senior secondary school two (SS2) students' qualifying examination result of English language, Mathematics and Civic Education obtained in schools in the North-Central, Nigeria.

Moreover, there is a long-standing view among many educators that the beliefs and feelings students have about themselves are a key determinant of academic success. Academic achievement refers to how students deal with their studies and how they cope with or accomplish different tasks given to them by their teachers. It is the extent to which a student has achieved his or her educational objectives. In academic achievement, self-esteem is considered in helping students view the capability to promote themselves through effort and set of goals which improved their ability in the schools. Common research has proved

that the best way to enhance students' academic achievement is through improving their self–esteem, (Maina, Abba, Hamza & Dadingel, 2021).

In a study, Isah, (2016) revealed that significant relationship existed between the academic achievement and the level of self-esteem of students in secondary schools (r = 0.880 p=0.001). He saw the high self-esteem person as likely to seek personal growth, development and improvement by pushing themselves to the limits to exercise their capabilities. Maina, et.al., (2021) findings showed that there was significant positive relationship between self - esteem and academic achievement among respondents P= .006. This finding also indicated no significant difference between the academic achievement of students with high self – esteem and those with low self – esteem (P = .305). The study further reported self-esteem as a predictor that contributes to academic performance and defined as the evaluative segment of self-concept. Students with high self-esteem are said to be active. Moreover, they can express themselves well, succeed academically and in organizing social relations. While students with low self-esteem are mostly shy. Shy students cannot participate actively in the learning process, so that the student is not able to resolve the existing problems in school, both academically and socially (Kalutskaya, Archbell, Rudassil & Coplan, 2015).

Oguze et al., (2023) in a study, find out that the consequences of low self-esteem are poor academic achievement, social isolation, feeling of worthlessness, drug abuse, health problems such as headache and fatigue, cultism, suicidal ideation, school dropout, aggressive behaviour, shyness and social maladjustment. Also, the study identified adolescent's male with low self-esteem as becoming school dropouts, engaging in social vices and also female adolescents as becoming teenage mothers due to low self-esteem and this can jeopardize their educational attainment or result into poor academic achievement. Okafor et al. (2018) emphasized that to increase our self-esteem, we have to lower our expectations of ourselves and increase our achievements.

Subon, Unin and Sulaiman (2020) investigated the existence of differences in academic achievement and self-esteem between genders. The study found that, gender has a significant effect on academic performance, with self-esteem playing a mediator role between the two variables. The findings reveal that gender plays a vital role in determining academic performance. Oguzie, et al., (2023) observed that the more success we achieve, the lower our expectation and pretension and the higher our self-esteem. In other word, when students perform well academically, they may develop a stronger sense of self-worth and belief in their abilities.

Arshad, Zaidi and Mahmood (2015) in a study, found out that there was significant relationship (r-0.87, p<01) between self-esteem and academic achievement and significant difference was found between male and female students on self-esteem and academic achievement, which indicate male students have high scores on self-esteem as compared to female students. Consistent with previous research, Bleidorn, Arslan, Denissen, Rentfrow, Gebauer, Potter and Gosling, (2016) found age-related increases in self-esteem from late adolescence to middle adulthood and significant gender gaps, with males consistently reporting higher self-esteem than females.

In contrast to the above, Perveen, Altaf and Tehreem, (2022) in a study carried out to measure the association between self-esteem and academic performance among the university going adolescents, found out a significantly positive correlation between self-esteem and academic performance. In addition, gender differences were found in terms of self-esteem as female participants had high self-esteem as compared to their male counterparts. Moreover, gender differences were found to be insignificant in terms of

academic performance. Reasons behind these variations are not conclusive, though, cultural norms may influence the self-esteem of boys and girls differently, impacting their academic pursuits and confidence levels.

Maina, Abba, Hamza and Dadingel (2021) reported that there was significant positive relationship between self - esteem and academic achievement among respondents P= .006. Also, Perven, et al. 2022 findings, indicated no significant difference between the academic achievement of students with high self – esteem and those with low self – esteem (P = .305). However, Anyanwu and Emesi, (2020) in a study found out that students' self-esteem recorded a very low negative relationship with academic achievement in mathematics. Some students are motivated to overcome an impending sense of failure as a person. They struggle to establish and maintain a sense of worth and belonging in a society that values competency and doing well. From the ongoing, self-esteem is clearly implicated in the achievement process and variations in self-esteem are closely related to different reasons for learning. It is obvious that relationship between students' self-esteem and academic achievements are multifaceted. As several studies and theories suggested potential connections and factors influencing this relationship.

Nevertheless, the relationship between students' self-esteem and academic achievement among students has been widely studied, yet findings remain inconclusive due to the complexity of the relationship and the influence of contextual and individual factors. Some researchers show minimal or no significant correlation between self-esteem and academic achievement while some other studies have reported high or low positive relationships. The cultural context in North-Central Nigeria where collective values and societal expectations are significant, may influence the relationship differently compared to other individualistic societies. Hence, the need to carry out the present study; relationship between self-esteem and academic achievement of secondary school students in the North-Central, Nigeria.

Theoretical Framework
This study is anchored on two theories which include; Maslow's theory of needs and David McClelland's achievement motivation theory.
Maslow's Theory of Needs
Theory of needs was first hypothesized by Maslow (1954). He opined that esteem need was one of the five sets of human needs. Maslow describes how motivation develops stage by stage from purely physiological drives to complex social purpose with Esteem need at the fourth level of the pyramid, as described in the figure presented below:
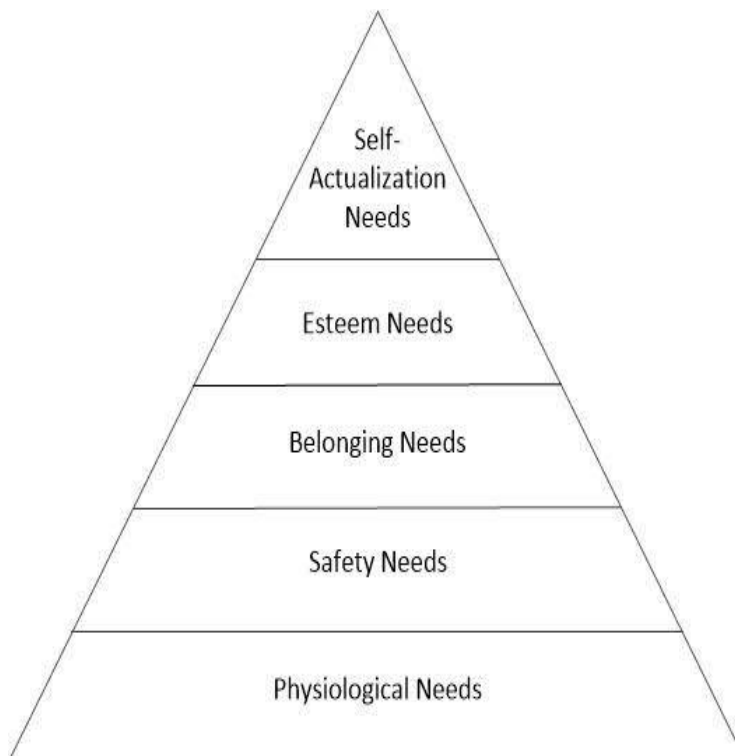
Fig.1: Maslow's hierarchy of needs.

Maslow believed that without the fulfilment of the esteem need, individual will be driven to seek it and unable to grow and obtain self-actualization. The esteem need connotes the need for achievement, status, self-respect, self-confidence, feelings of strength and adequacy. All humans have a need to feel respected; this includes the need to have self-esteem and self-respect. Self-esteem presents the typical human desire to be accepted and valued by others. People often engage in a profession or hobby to gain recognition. These activities give the person a sense of contribution or value. Low self-esteem or an inferiority complex may result from imbalances during this level in the hierarchy.

The above theory is employed in this work because of its relevance to the present study in explaining various aspects of students' self-esteem. This theory is necessary for this study as the Maslow's hierarchy of needs has been used to explain how effort and motivation are correlated in the context of human behaviour. It creates awareness to both teachers and leaders on how important it is to regard each student as a unique individual, appreciating them for their one-of-a-kind character traits. This emphasizes healthy, positive behaviour and self-esteem. This might enable them make an effort to show students that their hard work and dedication are genuinely appreciated. This prioritization will support the development of each student's self-esteem and self-worth.

David McClelland's Achievement Motivation Theory
David McClelland (1961), a proponent of achievement motivation theory, asserted that achievement theory explains and predict behaviour and performance based on a person's need for achievement, power and affiliation. He further explained that, the need for achievement refers to an individual desire for significant, accomplishment, mastery of skills control, or high standards; and associated with a range of actions. These include, intense, prolonged and repeated efforts to accomplish something. To work with singleness of purpose towards a high and distant goal, to have the determination to win, this need is influenced by internal drive for action (intrinsic motivation), and pressure exerted by the

expectations of others (extrinsic motivation). Need for achievement motivates an individual to success in competition, and to excel in activities important to him or her.

As proposed by McClelland, every student in the school setting has the desire to satisfy the need for achievement, the need for power and the need for affiliation. The ability to satisfy the achievement needs of students is very important in the school setting and the role of the achievement motivation theory cannot be done without as far as the school is concerned. Hence, the provision of adequate opportunities for them will be very helpful as this will improve students self-esteem which will enable them to achieve high academically.

1.1 Statement of the Problem

Upper Basic Education is an organized education for children leaving Middle Basic schools. It is the education children receive after primary education and before the tertiary education. In specific term, one of the objectives of secondary education according to the Federal Republic of Nigeria (2014) as stated in the National Policy on Education include; to provide all primary school leavers with the opportunity for education of a higher level, irrespective of sex, social status, religious or ethnic background. Definitely, one of the indicators to show that the objectives of secondary school education is being achieved lies on good achievement of students in external examinations for qualification into tertiary institutions.

The researcher observed that most Upper Basic Schools in North central Nigeria are lagging behind in academic achievements. The analysis of the performance of the states in North-Central, Nigeria, in West African Examination (WASSCE) in Nigeria revealed the summary of the positions of the States in North-Central, Nigeria, drawn from the number and percentages of candidates that obtain five credits and above including Mathematics and English Language in WASSCE released, May/June among Nigeria's 36 states from year 2014 to 2018. The mean percentages were as follows: Benue; 44.48%, Kogi; 38.26%, Kwara; 47.11%, Nasarawa; 38.74%, Niger; 26.72% & Plateau; 32.55% (National Bureau of Statistics, 2019). Additionally, there are challenges related to low morale, leading to student dropouts. Thus, various factors might have constituted significant challenge in the effort of the students to learn and do better academically. As a result, it will not be out of place to conclude that more still needs to be done by all stakeholders to improve the performance of the Nigeria educational sector for student's better academic achievement.

Research Questions
1. What is the self-esteem of senior secondary school students in North-Central, Nigeria?
2. What is the academic achievement of senior secondary school students in North Central, Nigeria?

3. What is the relationship between self-esteem and academic achievement of secondary school students in North-Central, Nigeria?
4. What are the differences in self-esteem between male and female senior secondary school students in North-Central, Nigeria?

5. What is the difference in self-esteem among early, middle and late adolescent students in senior secondary schools in North-Central, Nigeria?

1.2 Hypotheses

For the purpose of this study, the following Hypotheses were formulated.

$H0_1$: There is no significant relationship between self-esteem and academic achievement of senior secondary school students in North-Central, Nigeria.

$H0_2$: There is no significant difference in self-esteem between male and female senior secondary school students in North-Central, Nigeria.

$H0_3$: There is no significant difference in self-esteem among early, middle and late adolescent students in senior secondary schools in North-Central, Nigeria

2. Methodology

2.1 Research Design

The study employed a correlation survey design. Correlational design is a study design for examining the relationships between or among two or more variables in a single group, which can occur at several levels (Barkha, Ranjita, Shrijana, Doma, Nazung & Shakeela, 2022). A correlation research design investigates relationships between variables without the researcher controlling or manipulating any of them (Bhandari, 2023). The justification for the use of the correlation design is due to the nature of the study and processes involved in the collection of data. It is used to find out relationship impact that would help in education to make valid decisions.

2.2 Population of the Study

The total population of this study was made up of all the senior secondary schools in North central, Nigeria. The target population comprises of 101,467 Senior Secondary Schools Two (SS.2) students from the public secondary schools in the North-Central, Nigeria across 816 Senior secondary schools (National Bureau of Statistics, 2022).

2.2 Sample and Sampling Techniques

This study used a sample of 383 students drawn from (15) fifteen sampled schools in each of the five states in the North-Central, Nigeria that constitute the study area. The sample size was determined using Glenn (2012) sample scale. A multi-stage sampling procedure was used for the selection of fifteen schools from the six North-Central states in Nigeria alongside with FCT. The choice of this technique was that multistage sampling allow researcher draw a sample from a population using smaller and smaller groups (units) at each stage. (Bhandari, 2023). The researcher selected the respondents randomly but proportionately for fair representation; thus, every school was given equal and independent chance of being included in the study.

2.3 Instrumentation

The instrument used for data collection was Self-esteem and Academic achievement Questionnaire (SEA-Q). SEA-Q is a self-structured instrument designed along a four-point rating scale with ten (10) items to elicit information from the respondents. Self-esteem Questionnaire is a 10-items researcher-designed instrument used to assess students' level of self-esteem. The SEA-Q was divided into two sections, A and B. Section "A" (Demographic Data) respondents provided background information on three items such as gender (male/female), Age range (Early adolescence:12-15years; Middle adolescence:16-19years; Late adolescence: 20years and above) the rationale behind this age range was

because the senior secondary school students used in this study are typically adolescents. This stage of education aligns with the age range of adolescence. This period, students are transitioning from childhood to adulthood, thus, learning to navigate increased academic and social responsibilities.

The questionnaire was validated by a team of experts in department of Educational Foundations in the Faculty of Education, University of Abuja to ensure face and content validity. The instrument was tested for reliability by conducting a pilot test. The instrument was administered to 50 Respondents who were not part of the study. The scores obtained from the pilot test was computed using internal consistency reliability coefficient (Cronbach's Alpha). The Alpha reliability coefficient of the instrument was, 0.706. This was considered high enough to make the questionnaire reliable for the study.

In responding to students' achievements in the three subject areas, records of achievement in an examination conducted by a national examination body that uses standardised test items were obtained and used for the data analysis.

3.Result

In this section, data on gender and age, were presented. Moreover, in answering research questions raised to guide this study, the mean achievement of participants for three essential subjects (English Language, Mathematics, and Civic Education) was computed using the Statistical Package for Social Sciences (SPSS). Only research question 1 and 2 will be answered. Other research questions were transformed into null hypotheses.

Table 1: Distribution of Respondents Based on Gender

Gender	Frequency	Percentage (%)
Male	212	55.40
Female	171	44.60
Total	383	100.00

Table 1 shows the distribution of respondents based on gender. The number of male respondents was 212(55.40%), while the female respondents were 171(44.60%). This implies that there were more male respondents than their female counterparts in this study.

Table 2: Distribution of Respondents According to Age

Age	Frequency	Percentage (%)
12 - 15 Years	140	36.60
16 - 19 Years	126	32.90
20 Years Above	117	30.50
Total	383	100.00

Table 2 shows that the number of respondents aged between 12-15 years is 140 (36.60%), the number of those aged above 16-19 years was 126 (32.90%), while those aged 20 years above were 117(30.50%). This implies that there are more respondents aged between 12-15, followed by those aged 16-19 years, while the least respondents were found among those aged 20 years above in this study.

Answer to Research Questions

Research Question One: What is the self-esteem of senior secondary school students in North-Central, Nigeria?

Table 3: Self-esteem of Senior Secondary School Students in North-Central, Nigeria

N=383

S/N	Items	Mean	Std Dev	Decision
1	I believe I am an excellent student	3.21	.943	Agreed
2	I don't feel shy in the class	2.68	.917	Agreed
3	I like expressing myself in the classroom	2.98	.894	Agreed
4	I feel that I have a number of good qualities.	2.67	.864	Agreed
5	On the whole, I am satisfied with myself	2.64	.913	Agreed
6	I set targets to achieve my goals and I make sure I achieve them by all means.	2.96	.821	Agreed
7	I feel others readily welcome and approve of me.	2.54	.923	Agreed
8	I strive to test my abilities and go beyond my comfort zone.	2.38	1.042	Disagreed
9	I believe others view me positively.	2.73	.860	Agreed
10	I sincerely believe in myself.	2.95	.857	Agreed
	Sectional Mean	2.77	0.903	

Table 3 shows the self-esteem of senior secondary school students in North-Central, Nigeria. The mean shows agreement and disagreement with some of the items. The sectional means for the items in respect of the self-esteem of senior secondary school students in North-Central, Nigeria was 2.77 (greater than 2.5 midpoint on a 4-point rating scale), indicating that there is moderate self-esteem among senior secondary school students in North-Central, Nigeria. Some students believe that they are excellent students.

Research Question Two: What is the academic achievement of senior secondary school students in North Central, Nigeria?

Table 4: The academic achievement of senior secondary school students in North Central, Nigeria year 2023/2024 academic session

N=383

Subject	Minimum	Maximum	Average Score
Mathematics	23.00	93.00	61.12
English Language	12.00	98.00	60.73
Civic Education	14.00	91.00	56.63
Academic Achievement	31.00	79.00	59.49

Table 4 shows the academic achievement of senior secondary school students in North Central, Nigeria. The minimum score in mathematics is 23.00, while the maximum score is 93.00 with an average score of 61.12. This means that the students' score in Mathematics is above average. The students' score in the English Language has a

Testing of Hypotheses

H0$_1$: There is no significant relationship between self-esteem and academic achievement of senior secondary school students in North-Central, Nigeria.

Table 5: Test Of Relationship Between Self-Esteem and Academic Achievement of Senior Secondary School Students In North-Central, Nigeria

Variables	N	r-cal	P-value	Decision
Self-esteem and	383	.697	.000	Rejected
Academic achievement				

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

As shown in Table 5 above, the computed correlation coefficient shows that there is significant relationship between self-esteem and academic achievement of senior secondary school students in North-Central, Nigeria. The *r*-value of .697 indicates a moderate correlation. The probability value (*p*-value) is .000 which is lesser than 0.05 alpha level of significance. This indicates positive relationship. Therefore, the null hypothesis which stated that, there is no significant relationship between self-esteem and academic achievement of students is hereby rejected.

H0$_2$: There is no significant difference in self-esteem between male and female senior secondary school students in North-Central, Nigeria.

Table 6: T-Test on Difference Between Male and Female In The Self-Esteem Of Senior Secondary School Students In North-Central, Nigeria

Gender	Number	Mean	S.D.	t-value	df	Sig(2-tailed)	Decision
Male	212	2.734	.429	.397	381	.529	Accepted
Female	171	2.824	.400				

The analysis in Table 6 was carried out to test the significant difference between male and female in the self-esteem of senior secondary school students in North-Central, Nigeria based on gender. With a significant value of .529 (more than the 0.05 alpha level of significance), the hypothesis that says that there is no significant difference in

self-esteem of senior secondary school students in North-Central, Nigeria based on gender is, therefore accepted and concludes that male and female students did not differ significantly in self-esteem of senior secondary school students in North-Central, Nigeria.

H0₃: There is no significant difference in self-esteem among early, middle and late adolescent students in senior secondary schools in North-Central, Nigeria?

Table 8: One-Way ANOVA For Difference In Self-Esteem Of Senior Secondary School Students In North-Central, Nigeria Due To Age Range

Age Range	Sum of Squares	df	Mean Square	F	Sig.	Decision
Between Groups	7.467	2	3.734	23.89	.000	rejected
Within Groups	59.387	380	.156			
Total	66.854	382				

The analysis in Table 8 was carried out to test the difference in self-esteem of senior secondary school students in North-Central, Nigeria due to age range. With a significant value of .000 (less than the 0.05 level of significance), the hypothesis that says that no significant difference in self-esteem of senior secondary school students in North-Central, Nigeria due to age range is, therefore, rejected and concludes that respondents differ significantly in self-esteem of senior secondary school students in North-Central, Nigeria due to age range.

4. Discussion of Findings

The main purpose of the study was to investigate the relationship between self-esteem and academic achievement of secondary school students in North-Central, Nigeria. Three hypotheses were tested at 0.05 level of significance. The findings revealed that there are significant statistical relationships between self-esteem and academic achievement among senior secondary school students in North-Central Nigeria.

Analysis of the hypothesis seeking for relationship between self-esteem and academic achievement of senior secondary school students in North-Central, Nigeria indicated a positive relationship. This is because the calculated p-value was found to be lower than the 0.05 alpha level of significance. This implies that the higher the students 'self-esteem, the higher their academic achievement. Also, the lower the students' self-esteem, the lower their academic achievement. Hence, the null hypothesis which stated that, there is no relationship between self-esteem and academic achievement of senior secondary school students in North-Central, Nigeria is rejected. It is therefore concluded that there is significant relationship between self-esteem and academic achievement of senior secondary school students in North-Central, Nigeria. This finding is in line with Zhao, Zheng, Pan and Zhou (2021) which findings of results showed that self-esteem positively predicted adolescent academic engagement through the indirect mediating role of academic self-efficacy. Another study by Maina, Abba, Hamza and Dadingel (2021), corroborated this finding that significant relationship exists between the academic achievement and the level of self-esteem of secondary school students in Gashua Education zone, Yobe State. The findings of the study revealed that there was significant positive relationship between self - esteem and academic achievement among respondents P=. 006. The study found that self-esteem has no significant influence on students' academic performance in secondary schools.

This implies that low or high self-esteem does not influence student's academic performance. However, Subon, Unin and Sulaiman (2020) in their finding saw no correlation between self-esteem and academic achievement. Also, that the variable does not statistically predict academic achievement of the students.

Findings on difference between male and female in the self-esteem of senior secondary school students indicates a significant value of .529 (more than the 0.05 level of significance), the hypothesis that says that there is no significant difference in self-esteem of senior secondary school students in North-Central, Nigeria based on gender is, therefore accepted and concludes that male and female students did not differ significantly in self-esteem of senior secondary school students in North-Central, Nigeria. This finding is of the same view with Isah, (2016), that there is no significant difference in self-esteem between males and females secondary school students and their academic achievement. Contradicting this study, Perveen, Altaf and Tehreem, (2022) in their study achieved a different result indicating, there is a significant difference in self-esteem between males and females in that the female participants had high self-esteem as compared to their male counterparts. However, gender differences were found to be insignificant in terms of academic performance.

This present study also revealed that students show significant differences in self-esteem based on age range among senior secondary school students in North-Central Nigeria. In line with the present study, Bleidorn, Arslan, Denissen, Rentfrow, Gebauer, Potter and Gosling, (2016) in their research to broaden the empirical base, found age-related increases in self-esteem from late adolescence to middle adulthood. Affirming that the cultures differed significantly in the magnitude of gender and age, effects on self-esteem. These differences were associated with cultural differences in socioeconomic, sociodemographic, gender-equality, and cultural value indicators. Aligning with these findings, Mahnaz, Shah, Muhammad, Syed and Anjum, (2022) in a study that assessed "Self-esteem and academic performance of students in public secondary schools in Punjab district, Attock revealed that, as far as age is concerned, the findings show that 52% of the students interviewed had attained 16 years and above. This suggest that age and gender have influence on self-esteem and in turn academic performance of the students.

5. Conclusion
Arising from the findings of this study, the following conclusions are drawn:

1. There is significant statistical correlation between self-esteem and academic achievement among senior secondary school students in North-Central Nigeria.
2. There is no significant difference in self-esteem between male and female senior secondary school students in North-Central Nigeria.
3. Students show significant differences in self-esteem based on age range among senior secondary school students in North-Central Nigeria.

6. Recommendations
In view of the findings made in this study, the following recommendations have been made.

1. Students should develop a strong sense of self-esteem from an early stage and maintain it throughout their academic journey.

2. Students should be trained on how to develop positive views about themselves and their academic work and should always believe that they will perform well in their academic challenges irrespective of their gender.
3. Teachers should adopt a new teaching strategy that will facilitate positive development of students' self-esteem for this will enhance their academic achievement at the optimal level.
4. Schools must employ the service of educational psychologists or counsellor who will serve as a support system for students struggling with low self-esteem. This can be done through intensive individual and group counselling, which will ultimately enhance their academic achievement.
5. The teachers who are the link between knowledge and learning in our educational system should be availed opportunities for regular training and re-training to enable them have a good grasp of the principles and philosophies of education. Providing training for teachers will help to standardise the teaching and learning environment, thereby ensuring quality assurance in Nigeria's' education system.

Disclaimer (Artificial intelligence)

Option 1:

Author(s) hereby declares that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

REFERENCES

Ackerman, C.E. (2018). What is self-esteem? A psychologist explains. *Positive Psychology Article*. https://positive   psychology.com/self-esteem/.

Anyanwu, A.N. & Emesi, K.E, (2020). Relationship among secondary school students' academic self-concept, self-esteem and academic achievements in mathematics in Anambra state. Unizik *Journal of Educational Research and Policy Studies* vol.1 no.1; https://unijerps.org.

Arshad, M., Imran, S., M, Zaidi, H. & Mahmood, K. (2015). Self-Esteem & academic performance   among university students. *Journal of Education and Practice,* 6, (1), 156-162.

Barkha, D., Ranjita, D., Shrijana, P., Doma, G., Nazung, L. and Shakeela, B. (2022). Application of correlational research design in nursing and medical research. *Journal of Xi'an Shiyou University*; 65(11):60-69

Bhandari, P. (2023). Correlational Research | When & How to Use. Retrieved September 2nd, 2023, from https://www.scribbr.com/methodology/correlational-research/

Bleidorn, W., Arslan, R. C., Denissen, J. J. A., Rentfrow, P. J., Gebauer, J. E., Potter, J., & Gosling, S. D. (2016). Age and gender differences in self-esteem—A cross-cultural window. *Journal of Personality and Social Psychology, 111*(3), 396–410

Emeji, J.C. (2018). *Effect of self-management technique on low self-esteem among secondary school students in Imo state*. Unpublished master's thesis, Nnamdi Azikiwe University, Awka.

Federal Republic of Nigeria, (2014). National policy on education (4th Ed.). Lagos: NERDC press.

Gidado, B.K. (2000). Environmental factors and student's poor academic performance in Bauchi State Secondary Schools. Abuja Journal of Education Vol.3 No. 1 PP 5-15.

Gidado, B.K, Apeh, H.K and Akinwande, A.O (2023) Learning Environment as Correlates of Academic Achievements of Senior Secondary School Students in North Central Nigeria. International Journal of Educational Research. Vol 6 No.4 PP 34-44 Global Publication House. DOI: 10.5281/zendo.7881430.

Isah, J. (2016). *Relationship among self-esteem, goal orientation and academic achievement of secondary school students in Zaria metropolis, Kaduna State, Nigeria*. Master thesis. Department of Educational Psychology and Counselling Ahmadu Bello University, Zaria, Nigeria.

Kalutskaya, I; Archbell, K. A.; Rudasill, K.M. & Coplan, R. J., (2015). "Shy children in the classroom: from research to educational practice" (2015). *Educational Psychology Papers and Publications*. Paper 222.

Mahnaz, W., Shah, N.M., Muhammad, N., Syed, Z., Anjum, F. (2022). Self esteem and academic performance of students in public secondary schools in Punjab District Attock. *Journal of Positive School Psychology,* 6, (10), 3020-3033.

Maina, U.A., Abba, T.S., Hamza, H. & Dadingel U. L. B. (2021). Influence of self–esteem on academic achievement of public senior secondary school students in Gashu's Education Zone, Yobe State. Yobe State College of Agriculture Science and Technology, Gujba. *African Scholars Journal of Contemporary Education Research* (JCER-8).

Michelle, H. (2021). Educational theory and practice: mastery- vs performance- oriented goals and their influence on motivation and success. https://edtheoery.blogspot.com/2021/01/mastery-vs-   performance-

National Bureau of Statistics, (2019). West African Examination Certificate results statistics (2014 - 2018) in Nigeria.

Nuryana, Z., Xu, W. & Lu, S. (2023). Developing self-esteem-based curriculum as a foundation for sustainable education: A systematic literature review and bibliometric analysis. Department of Education Science, Nanjing Normal University, Nanjing, China. Retrieved July 7th, 2023, from, https://www.rontiersin.org/articles/10.3389/feduc.

Nwokolo, C.N. & Oguzie, A.E. (2021). Relationship between secondary school students' self-esteem and their attitude towards examination malpractice   in Imo state.

Sapientia Global Journal of Arts, Humanities and Development Studies, 4(1), 33 – 44.

Oguzie, A.E., Ordua, V.N., Nnadi, G.C & Boulife, Q.O, (2023). Counselling Strategies for Handling Low Self-Esteem Among Secondary School Students in Anambra State. *Sapientia Foundation Journal of Education, Sciences and Gender Studies*, Vol.5 No1.

Okafor, E.O. Obi, J.S.C. & Oguzie, A.E. (2018). Relationship Between student's self-esteem and academic achievements in Imo state. *African Journal of Multidisciplinary Research, 1(1), 268-309.*

Olivine, A. (2024). What is self-esteem and how do you improve it? *Mental Health Article*; 225 Liberty St, 4th Floor New York, NY 10281212-204-4000. https://verywellhealth.com.

Perveen, F., Altaf, S. & Tehreem, H. (2022). Relationship between self-esteem and academic performance: a gendered perspective. Pakistan Journal of Social Research 04(03):780-785.

Subon, F., Unin, N., & Sulaiman, N. (2020). Self-Esteem and academic achievement: the relationship and gender differences of Malaysian university undergraduates. *IAFOR Journal of Psychology and Behavioural Sciences*, 6(1), 43-54.

Thompson, R.A. (2015). Infancy and childhood: Emotional development. International Encyclopaedia of the Social & Behavioural Sciences. Volume 26. Elsevier; Amsterdam, The Netherlands: 2015. pp. 1–6.

Zhao Y, Zheng Z, Pan C & Zhou L. (2021). Self-Esteem and Academic Engagement Among Adolescents: A Moderated Mediation Model. Front. Psychology. Doi:10.3389/fpsyg.2021.690828.