AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.18 (1), May-August, 2026; https://ajemates.org

RELATIONSHIP BETWEEN SELF-CONCEPT AND ACADEMIC ACHIEVEMENT OF STUDENTS IN STATE-OWNED PUBLIC SECONDARY SCHOOLS IN ANAMBRA STATE

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ABSTRACT

This study examined the relationship between self-concept and academic achievement of students in public secondary schools in Anambra State. Three research questions and three hypotheses guided the study. Correlational research design was adopted for the study. The population of the study consisted of 21,667 SS2 students in the 267 public secondary schools in Anambra State. Taro Yamene formula was used to determine the sample size of 393 for the study and proportionate stratified and simple random sampling procedure was used to elicit the sample for the study. The instrument for data collection was titled; "Robson Self-Concept Questionnaire (RSCQ)" which was adapted by the researcher. The face validity of the instruments was established by three experts. The construct validity of the instruments was established using Principal Component Analysis approach. Cronbach Alpha procedure was used to determine the internal consistency of the instruments. Pearson Product Moment Correlation Coefficient (PPMC) was used to answer the research questions, and test of significance of correlation was used to test hypotheses at 0.05 level of significance. The study revealed that there was significant relationship between self-concept and academic achievement of male, female, and urban based senior secondary two (SS2) students in public secondary schools in Anambra State but there was no significant relationship between self-concept and academic achievement of rural based senior secondary two (SS2) students in public secondary schools in Anambra State. Government should recognize self-concept as a key factor in academic success and incorporate it into: school improvement plans, guidance and counselling programs. Principals should ensure that guidance counsellors are effectively counselling students to expose them to the importance of promoting positive self-concept. Activities and leadership opportunities which promote positive self-concept such as participation in clubs, sports, student leadership positions should be encouraged among students. Government should promote equal opportunities in education irrespective of gender to enable all students reach their full potential and succeed academically. The result of this study had added to the existing body of knowledge by affirming the existence of positive and significant relationship between self-concept and academic achievement of students in public secondary schools in Anambra State. This study

also showed that while self-concept significantly predicts academic achievement overall and consistently across gender, its influence varies by location.

Keywords: Self-concept, Academic achievement, Guidance counsellors, Activities and Leadership opportunities

Introduction

Education is widely regarded as the life wire of every nation and a central pillar of national development. It equips individuals with knowledge and skills necessary for nation building and societal advancement. Secondary education, which is the focus of this study, serves as a bridge between primary and tertiary education and prepares young individuals for higher learning and productive participation in society. Through effective instruction, students are expected to acquire relevant knowledge and skills, the quality of which is reflected in their academic achievement.

The academic achievement of students is crucial in the educational system. Onyekazi et al. (2021) defined academic achievement of students as the level of the assimilation of knowledge and skills by students imparted through teachers, people or materials around them which is mostly measured through administering test or examinations to the students. In the view of Shakai (2020), academic achievement of students is how students deal with their studies, accomplish different tasks given by their teachers and how well they pass their examinations. This study defined the academic achievement of students as the extent of their understanding or mastery of the knowledge and skills passed unto them by teachers which is ascertained through the results from tests and assignments given to them.

It is an important indicator of educational effectiveness and overall development of learners and society. However, it has been observed that the academic achievement of students in some public secondary schools in Anambra State is poor and fluctuating, despite government efforts to improve educational standards (WAEC, 2022).

The factor which affect the academic achievement of students include: students' time management, self-concept, engagement, teachers teaching experience, teachers teaching methods, school location, financial ability of the parents, culture, students' IQ level, the content of the curriculum, poor infrastructure, growing privatization and inconsistent government policies (Suleiman 2023). Self-concept, location, gender and reading ability could affect the academic achievement of students (Rangappa cited in Parveez &Tariq, 2021). This study examined self-concept as it relates to academic achievement of students in public secondary schools in Anambra State with location and gender as moderating variables.

Self-concept is a person's perception of himself or herself formed through experience and interpretation of events in the environment (Husaini and Mamman, 2025). Self- concept is how people view themselves.

It is a person's self-image or how one feel about himself or herself. It is the view and the general ideology an individual has about himself or herself as a person. Mohammed (2023) asserted that self-concept is the picture an individual has about himself which includes; looks and appearance, physical health, ability, weaknesses, and his behaviour. The way an individual feel or perceive himself or herself could propel that person to act or behave in a particular way. It influences behaviour, confidence, and learning outcomes and may be positive or negative, thereby affecting students' academic performance.

Another important factor is school location, which refers to whether a school is situated in an urban or rural environment. Urban schools are often characterized by better infrastructure, qualified personnel, and learning resources, while rural schools may face challenges such as inadequate facilities and teacher shortages, which can negatively affect students' academic performance (Ugo, 2020). Gender has also been identified as a moderating variable, with studies reporting mixed findings on its influence on students' academic achievement and self-concept. Some researchers, believed that self-concept could be subject to gender among other variables. Sadia (2017) opined that male students tend to have good self-concept compared to female students. In this regard, Purkey (2018) had reported in his study that male students have poor self-concept compared to the female students. In contrast, Haque (2019) indicated that there is no overall significant difference in the self-concept of male and female students. Marsh (2018) predicated that the self-concept of male and female students in secondary schools could determine their academic achievement. These disparities are among the reasons this study intends to ascertain the relationship between self-concept and academic achievement of students in public secondary schools in Anambra State with location and gender as moderator variables.

Statement of the Problem

Academic achievement of students is necessary for individual and societal development. It is disconcerting to note that the academic achievement of students in some public secondary schools in Anambra State appear poor. Despite the immense effort of the state government and well-meaning stake holders in education towards maintaining the status quo of the State as an educationally advantaged State yet, the academic achievement of students is not uniform across the State. West African Examination Council (WAEC) Chief Examiners Report and results from internal examination in public secondary schools in Anambra State indicated that the academic achievement of students in some public secondary schools in the State seem poor and fluctuating (WAEC, 2022).

A number of reasons could account for this among which are: the availability of experienced teachers, availability of adequate educational facilities, students' attitude to learning, parents' involvement in their children's learning, school location, gender of the students, cultural values, the way principals handle the school and so on. If nothing is done to address this problem of

poor academic achievement of students in some public secondary schools in the State, students across the State would not be able to pass the required subjects that would give them access into higher institutions of learning or to acquire some professional skills. Poor academic achievement of could lead to frustration, boredom and conflict in families. It could result to students' engagement in social vices such as: drug abuse, stealing, prostitution, thuggery and many others. It should be noted that some public secondary schools are located in rural areas while some are located in urban areas, and the students have different gender and self-concept. It is as a result of this backdrop that this study examined the relationship between self-concept and academic achievement of students in public secondary schools in Anambra State.

Purpose of the Study

The main purpose of the study was to investigate the relationship between self-concept and academic achievement of students in public secondary schools in Anambra State.

Specifically, the study sought to:

1. Ascertain the relationship between self-concept and academic achievement of senior secondary two students in public secondary schools in Anambra state.
2. Examine the relationship between self-concept and academic achievement of male and female senior secondary two students in public secondary schools in Anambra state.
3. Determine the relationship between self-concept and academic achievement of urban and rural based senior secondary two students in public secondary schools in Anambra state.

Research Questions

This study was guided by the following research questions:

1. What is the relationship between self-concept and academic achievement of senior secondary two students in public secondary schools in Anambra state?
2. What is the relationship between self-concept and academic achievement of male and female senior secondary two students in public secondary schools in Anambra state?
3. What is the relationship between self-concept and academic achievement of urban and rural based senior secondary two students in public secondary schools in Anambra state?

Hypotheses

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

1. There is no significant relationship between self-concept and academic achievement of senior secondary two students in public secondary schools in Anambra state.
2. There is no significant relationship between self-concept and academic achievement of male and female senior secondary two students in

public secondary schools in Anambra state.

3. There is no significant relationship between self-concept and academic achievement of urban and rural based senior secondary two students in public secondary schools in Anambra state.

Research Method

The study adopted a correlational research design. The population comprised 21,667 SS2 students in 267 public secondary schools across the six education zones in Anambra State (PPSSC, 2024). The sample size was 393 SS2 students drawn from 80 schools. Proportionate stratified random sampling was used to select schools based on education zones, while simple random sampling was used to select students within the sampled schools, ensuring fair representation across zones. Two instruments were used for data collection: the Robson Self-Concept Questionnaire (RSCQ) adapted from Robson (1989) and a 20-item Mathematics Achievement Test (MAT) developed by the researcher. The RSCQ contains 30 items on a four-point Likert scale measuring students' self-concept, while the MAT assessed students' academic achievement in mathematics.

Face validity of the instruments was established by three experts in Guidance and Counselling and Measurement and Evaluation at Chukwuemeka Odumegwu Ojukwu University. Their suggestions led to revisions in item structure, wording, and alignment with the study objectives. Construct validity was determined using Principal Component Analysis (PCA), which confirmed acceptable factor structure, while weak items were removed and replaced. The reliability of the RSCQ was determined using Cronbach Alpha on a pilot test involving 20 SS2 students from Enugu State, yielding a coefficient of 0.783, indicating acceptable internal consistency.

The instruments were administered with the help of four research assistants using the on-the-spot method, and follow-up visits were made where necessary. Of the 393 copies distributed, 380 were correctly retrieved, representing a 96.69% return rate. Data were analyzed using Pearson Product Moment Correlation Coefficient (PPMC), while hypotheses were tested at 0.05 level of significance using SPSS version 27. Interpretation of correlation followed Schober et al. (2018) guideline for strength of relationships.

Presentation and Analysis of Data

This chapter dealt with the presentation of results and analysis of data collected for the study. The data obtained from the field by the researcher were presented and analyzed in relation to the research questions and hypotheses in the study. At the end of the presentation, a summary of the findings was presented.

Analysis of Research Questions

Research Questions 1: What is the relationship between self-concept and academic achievement of senior secondary two (SS2) students in public secondary schools in Anambra state?

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Table 1: Pearson (r) of the relationship between self-concept and academic achievement of senior secondary two (SS2) students in public secondary schools in Anambra State.

Sources of variation		Self-Concept	Academic achievement of senior secondary two (SS2) students	Remark
Self-Concept	Pearson (r)	1.00	0.499[x x]	
	N	380	380	Moderate positive relationship
Academic achievement of senior secondary two (SS2) students	Pearson (r)	0.499[x x]	1.00	
	N	380	380	

[x x] (0.499) = Moderate positive relationship

Pearson (r) displayed in Table 1 showed moderate positive relationship between self-concept and academic achievement of senior secondary two (SS2) students in public secondary schools in Anambra State. The result of Table 1 revealed that Pearson (r) value of 0.499 was obtained. This indicated a moderate positive relationship (r = 0.499, N = 380) between self-concept and academic achievement of senior secondary two (SS2) students in public secondary schools in Anambra State.

Research Questions 2: What is the relationship between self-concept and academic achievement of male and female senior secondary two (SS2) students in public secondary schools in Anambra state?

Table 2: **Pearson (r) of the relationship between self-concept and academic achievement of male and female senior secondary two (SS2) students in public secondary schools in Anambra State.**

Sources of variation		Academic achievement of senior secondary two (SS2) students	Self-Concept	Remark
Academic achievement of male senior secondary two (SS2) students	Pearson (r)	1.00	0.570[x x]	
	N			Moderate positive relationship
	130			
Self-Concept		0.570[x x]	1.00	
	130			

Academic achievement of female senior secondary two (SS2) students	Pearson (r) N 250	1.00 0.615[x]	0.615[x] 1.00	Moderate positive relationship
Self-Concept	250			

[x x] r (0. 570) = Moderate positive relationship
[x x] r (0. 651) = Moderate positive relationship

The result in Table 2 showed that the Pearson (r) between self-concept and academic achievement of male and female senior secondary two (SS2) students in public secondary schools in Anambra State was 0.570 for male and 0.615 for female. The values indicated that the relationship between self-concept and academic achievement of male and female senior secondary two (SS2) students in public secondary schools in Anambra State had a moderate positive relationship.

Research Questions 3: What is the relationship between self-concept and academic achievement of urban and rural based senior secondary two (SS2) students in public secondary schools in Anambra State?

Table 3: Pearson (r) of the relationship between self-concept and academic achievement of urban and rural based senior secondary two (SS2) students in public secondary schools in Anambra State.

Sources of variation		Academic achievement of senior secondary two (SS2) students	Self-Concept	Remark
Academic achievement of urban based senior secondary two (SS2) students	Pearson (r) N 267	1.00 0. 723[x x]	0.723[x x] 1.00	Strong positive relationship
Self-Concept	267			
Academic achievement of rural based senior secondary two (SS2) students	Pearson (r) N 113	1.00 0.205[x]	0.205[x] 1.00	Weak positive relationship
Self-Concept	113			

[x x] r (0. 723) = Moderate positive relationship

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[x x] r (0. 205) = Moderate positive relationship

Findings from Table 3 indicated the Pearson (r) between self-concept and academic achievement of urban and rural senior secondary two (SS2) students in public secondary schools in Anambra State. The result was 0.723 for urban students and 0.205 for rural students. The values depicted that the relationship between self-concept and academic achievement of urban students in public secondary schools in Anambra State had a high positive relationship while the relationship between self-concept and academic achievement of rural students in public secondary schools in Anambra State had a low positive relationship.

Test of Hypotheses

In order to make decision on the relationship between self-concept and students' academic achievement in public secondary schools in Anambra State, the following null hypotheses were tested at 0.05 level of significance.

Hypothesis 1: There is no significant relationship between self-concept and academic achievement of senior secondary two (SS2) students in public secondary schools in Anambra State.

Table 4: Test of significance of correlation between self-concept and academic achievement of senior secondary two (SS2) students in public secondary schools in Anambra State.

Sources of variation		Self-Concept	Academic achievement of senior secondary two (SS2) students	Decision
Self-Concept	Pearson (r) sig. (2-tailed)	1.00	0.499[x x] 0.032	Significant
	N	380	380	
Academic achievement of senior secondary two (SS2) students	Pearson (r) sig. (2-tailed)	0.499[x x] 0.032	1.00	
	N	380	380	

[x x] correlation is significant at the 0.05 level (2-tailed).

Analysis from Table 4, indicated that the correlation between self-concept and academic achievement of senior secondary two (SS2) students in public secondary schools in Anambra State was 0.499 and a probability value of 0.032 was obtained. The p-value of 0.032 which was obtained was less than 0.05 level of significance (r, 380 = 0.499, p-value = 0.032). Since the p-value of 0.032 was less than 0.05 alpha level, the null hypothesis was rejected. This meant that there is a significant relationship between self-concept and academic achievement of

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senior secondary two (SS2) students in public secondary schools in Anambra State.

Hypothesis 2: There is no significant relationship between self-concept and academic achievement of male and female senior secondary two (SS2) students in public secondary schools in Anambra State.

Table 5: Test of significance of correlation between self-concept and academic achievement of male and female senior secondary two (SS2) students in public secondary schools in Anambra State.

Sources of variation		Academic achievement of senior secondary two (SS2) students	Self-Concept	Remark
Academic achievement of male senior secondary two (SS2) students	Pearson (r) Sig (2- tailed) N	1.00 130	0.570[x x] 0.002 130	Significant
Self-Concept	Pearson (r) Sig (2-tailed) N	0.570[x x] 0.002 130	1.00 130	
Academic achievement of female senior secondary two (SS2) students	Pearson (r) Sig (2-tailed) N	1.00 250	0.615[x] 0.010 250	
Self-Concept	Pearson (r) Sig (2-tailed) N	0.615[x] 0.010 250	1.00 250	Significant

[x x] correlation is significant at the 0.05 level (2-tailed).
[x] correlation is significant at the 0.05 level (2-tailed).

Table 5 indicated that the p-values of self-concept and academic achievement of male and female senior secondary two (SS2) students in public secondary schools in Anambra State was 0.002 for male students and 0.010 for female students. These values implied that the p-values (r, 130 = 0.570, p-value = 0. 002) for male students was greater than 0.05 level of significance and (r, 250 = 0.615, p-value = 0. 010) for female students was also greater than 0.05 level of significance, therefore the null hypotheses

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was rejected. Hitherto, the finding was that there is significant relationship between self-concept and academic achievement of male and female senior secondary two (SS2) students in public secondary schools in Anambra State

Hypothesis 3: There is no significant relationship between self-concept and academic achievement of urban and rural based senior secondary two (SS2) students in public secondary schools in Anambra State.

Table 6: Test of significance of correlation between self-concept and academic achievement of urban and rural based senior secondary two (SS2) students in public secondary schools in Anambra State.

Sources of variation		Academic achievement of senior secondary two (SS2) students	Self-Concept	Remark
Academic achievement of urban based senior secondary two (SS2) students	Pearson (r)	1.00	0.725[x x]	
	Sig (2-tailed)		0.023	Significant
	N	267	267	
Self-Concept	Pearson (r)	0.725[x x]	1.00	
	Sig (2-tailed)	0.023		
	N	267	267	
Academic achievement of rural based senior secondary two (SS2) students	Pearson (r)	1.00	0.205[x]	
	Sig (2-tailed)		0. 492	
	N	113	113	
Self-Concept	Pearson (r)			
	Sig (2-tailed)	0.205[x]	1.00	
		0.492		Not
	N			Significant
		113		
			113	

[x x] correlation is significant at the 0.05 level (2-tailed).
[x] correlation is significant at the 0.05 level (2-tailed).

Table 6 showed that the p-values of self-concept and academic achievement of rural and urban based senior secondary two (SS2) students in public secondary schools in Anambra State was 0.023 for urban based students and 0.492 for rural based students. The values obtained indicated that the p-values (r, 267 = 0.725, p-value = 0. 023) for urban based students was less than 0.05 level of significance and (r, 113 = 0.205, p-value

= 0. 492) for rural based students was greater than 0.05 level of significance. Hence, there is significant relationship between urban based senior secondary two (SS2) students in public secondary schools in Anambra State but there is no significant relationship between rural based senior secondary two (SS2) students in public secondary schools in Anambra State.

Discussion of Findings

The findings of the study revealed that there was a moderate positive relationship between self-concept and academic achievement of SS2 students in public secondary schools in Anambra State. The corresponding null hypothesis showed that the relationship between self-concept and academic achievement of SS2 students was significant. This implies that students with positive self-concept tend to perform better academically than those with negative self-concept. In other words, students who have confidence in themselves, value their abilities, and maintain positive self-perception are more likely to achieve higher academic results, while those with low self-concept tend to perform poorly due to lack of motivation and self-belief.

The findings are in agreement with Achi (2020), who reported a significant positive relationship between self-concept and academic achievement among secondary school students in Anambra State. It also supports the findings of Okechukwu (2018) and Onwuhaluonye (2018), who found similar results in Edo State and Maiduguri respectively. These consistent findings across different locations suggest that self-concept is an important determinant of students' academic achievement regardless of geographical differences.

The findings revealed a moderate positive relationship between self-concept and academic achievement among both male and female SS2 students in Anambra State. This implies that improved self-concept leads to improved academic achievement irrespective of gender. The null hypothesis further showed that the relationship was significant for both male and female students. Thus, students' perception of self-worth and abilities plays a key role in shaping their academic performance across gender groups.

For male students, the findings showed a significant relationship between self-concept and academic achievement, indicating that males with higher self-concept are more likely to be actively engaged in learning and perform better academically. Similarly, for female students, a significant relationship was also observed, meaning that positive self-concept enhances motivation, study habits, and participation in academic activities, thereby improving achievement. These findings are consistent with Sa'ad et al. (2025) and Jack and Kurutsi (2020), but contradict Nnamani and Oyibe (2018), who reported no significant gender-based relationship. The differences may be due to variations in location, time of study, and contextual factors. Overall, the findings suggest that self-concept is a strong predictor of academic achievement for both genders.

The findings showed a strong positive relationship between self-concept and academic achievement among urban-based

SS2 students in Anambra State. This indicates that students in urban schools with higher self-concept tend to achieve better academically. The relationship was also found to be significant. Urban students benefit from better exposure, learning resources, peer interaction, and educational opportunities, which may strengthen their self-concept and academic performance.

In contrast, a weak positive relationship was found among rural-based students, indicating that self-concept has only a slight influence on their academic achievement. The corresponding hypothesis showed no significant relationship for rural students. This suggests that other factors such as inadequate facilities, limited exposure, and reduced academic competition may play a stronger role in influencing their performance than self-concept. These findings disagree with Odogwu and Obi (2025), who reported a significant relationship between school location and academic achievement, but are in line with Aramude and Omokhomion (2024), who found that self-concept is more strongly related to achievement among urban students than rural students. The result highlights the need for targeted interventions to improve both self-concept and learning conditions in rural schools.

Conclusion

Conclusion was drawn according to the results of this study. It was concluded that there was a moderate positive relationship between self-concept and academic achievement of senior secondary two (SS2) students in public secondary schools in Anambra State. The study also revealed that the relationship between self-concept academic achievement of senior secondary two (SS2) students in public secondary schools in Anambra State is significant. Self-concept had a moderate positive relationship with academic achievement of male and female senior secondary two (SS2) students in public secondary schools in Anambra State. The relationship between self-concept and academic achievement of male senior secondary two (SS2) students in public secondary schools in Anambra State is significant.

Also, the relationship between self-concept and achievement of female senior secondary two (SS2) students in public secondary schools in Anambra State is significant. There was a strong positive relationship between self-concept and academic achievement of urban based senior secondary two (SS2) students in public secondary schools in Anambra State. There was a weak positive relationship between self- concept and academic achievement of rural based senior secondary two (SS2) students in public secondary schools in Anambra State. There is significant relationship between self-concept and academic achievement of urban based senior secondary two (SS2) students in public secondary schools in Anambra State but there is no significant relationship between self-concept and academic achievement of rural based senior secondary two (SS2) students in public secondary schools in Anambra State.

Recommendations

Based on the findings of this study, the following recommendations were made;

1. Government should recognize self-concept as a key factor in academic success and incorporate it into: school improvement plans, guidance and counseling programs.
2. Principals should ensure that guidance and counselors are effectively counseling students to expose them to the importance of promoting positive self-concept.
3. Principals should encourage activities and leadership opportunities which promote positive self-concept such as participation in clubs, sports, student leadership positions among students.

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