

# Emotional intelligence, self-esteem and gender as correlate of secondary school students' academic achievement in Anambra State, Nigeria

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**ABSTRACT:** This study investigated emotional intelligence, self-esteem and gender as correlate of secondary school students' academic achievement in Anambra State. Three research questions and two null hypotheses tested at 0.05 level of significance guided the study. The study was carried out in Onitsha, and Awka education zones of Anambra State, Nigeria. The design adopted for this study was correlational research designs. The population of the study comprised all the year two senior secondary school (SSS2) students in the 263 public secondary schools in Anambra state. The sample for the study consists of 1,028 students obtained through non-proportionate stratified random sampling technique from 18 secondary schools in Onitsha, and Awka education zones. The instruments for data collection include a structured questionnaire that was used to collect data on the student's emotional intelligence called Emotional Intelligence Questionnaire (EIQ), a Self-Esteem Inventory (SEI) and Mathematics and English Language Achievement Test (MEAT). The instrument was face and content validated by two experts. The research questions were analysed using Pearson Product Moment Correlation Coefficient (Pearson  $r$ ) while hypothesis was tested using multiple regression. Results of the research showed that there was a significant relationship between emotional intelligence, self-esteem and gender with academic achievement of secondary school students in mathematics and English language. Based on the findings of this study, recommendations were made. One of the recommendations is that government should organize seminar and workshop for teachers to enable them to understand the concepts of emotional intelligence and self-esteem in order to build their own emotions and that of their students.

**Keywords:** Academic achievement, emotional intelligence, English language, gender, secondary school, self-esteem, students.

## INTRODUCTION

Achievement is accomplishing or finishing something successfully. It means the one's successful completion of a task. According to Gbonee (2014), academic achievement is the success and accomplishment of an academic task by a student or teacher. Achievement is measured by an instrument called achievement test. This is a test that measures what the student has

learned or what skills the student has mastered (Fazura and Ghazli 2013).

In recent times, it is believed that intelligence quotient (IQ) is not the only type of intelligence that affects students' success (Goleman as cited in Chijioko 2016). Emotional intelligence also plays a significant role in students learning. Emotional intelligence is defined as

the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions (Bandura and Adams, 1977). Emotional intelligence refers to an ability to recognize the meaning of emotion and their relationships and to reason and solve problem (Hossieni et al., 2007). Emotional intelligence is involved in the capacity to perceive emotions, assimilate emotion - related feelings, understand the information of those emotions and manage them. Emotional intelligence is the capacity to create positive outcomes in relationships with others and with oneself (Salau, 2012).

There are different levels of emotional intelligence. These include high level, moderate level and low level. Research has shown that students with high emotional intelligence are more likely to perform better in tasks requiring emotions than those with low emotional intelligence skills. To buttress this fact, Eze and Ezeahurukwe (2015) observed that high emotional intelligence among students is characterized by quality social relationship with peers and teachers, long retention in education system and better academic performance, feeling of emotional security, and exhibition of pro-social behaviours. The key ingredients for this understanding are confidence, curiosity, intentionality, self-control, related needs, capacity to communicate and ability to cooperate. These traits are all aspects of emotional intelligence.

Another factor that affects academic achievement is self-esteem. It is personal self-satisfaction and his sense of being valuable (Bandura and Adams, 1977). Self-esteem means how people think about themselves, how much they like themselves and if they are satisfying with their achievement, especially how they feel about society, education and family and to what extent their ideal self and actual self are close to each other (Hossieni et al., 2007). Self-esteem refers to individual's perception or subjective appraisal of one's own self-worth, one's feelings of self-respect and self-confidence and the extent to which the individual holds positive or negative views about self (George, 2017). A sense of self-valuation and self-esteem is a basic need for mental relief and is a need on which our life satisfaction is depended extremely.

In the context of this study, self-esteem is defined as the belief, perception and opinion individuals have about themselves which influences their behaviours and consequently affect their achievements in life. Self-esteem could be high or low. When individuals have high self-esteem, they tend to feel positive about themselves and about life in general.

Research has shown that self-esteem is influenced by factors such as gender and age. For example, it was reported that female students' self-esteem is generally lower than males' self-esteem. Similarly, boys have been found to demonstrate a slightly higher level of self-esteem than girls (Okafor et al., 2018).

Gender refers to effects or influences that relate to one being a male or female. The term gender is often used to indicate the distinction between human beings on the basis of masculinity and femininity in relation to their expected roles. Previous studies reported that there are no distinguishing differences in the cognitive, affective and psychomotor skills achievement of students in respect of gender in the area of chemistry, mathematics and science (Onah 2011). However, Kolawole (2008), Maliha (2011) and Sharei et al. (2012) in their respective studies found that male students performed better than female students in cognitive, affective and psychomotor skills achievements.

Igboegwu and Okonkwo (2012) showed that males had higher average scores than girls between the ages of 9, 13 and 17 in science, mathematics and reading assessments, while Oludipe (2012) maintained that gender has no significant influence on students' achievement in science. These researches are inconclusive in their reports as to whether females and males differ in the ways they learn. As there is controversy on gender difference on academic achievement, it is imperative to find out if there are any relationship between gender and academic achievement of secondary school students in Anambra state and more importantly any relationship between students' emotional intelligence, self-esteem and gender on students' academic achievement in Mathematics and English language.

### **Statement of the problem**

Many researchers have attributed poor achievement of students in mathematics and English language to lack of interest in the subject, and the resultant fear that makes them see the subject as difficult. Although studies to find out the relationship between emotional intelligence, self-esteem and academic achievement of secondary school students have been conducted with contradictory results, not much effort has been made on determining the emotional intelligence, self-esteem and academic achievement of secondary school students. There are no many empirical studies to the best knowledge of the researcher that sought to determine the relationship between emotional intelligence, self-esteem, gender and students' academic achievement in Mathematics and English language in Anambra state. Hence, the gap that the present study intends to fill is stated in question form: "is emotional intelligence and self-esteem related with academic achievement of secondary school students in Anambra State?"

### **Objectives**

The objective of this study is to determine the relation-

ship between emotional intelligence, self-esteem, gender and academic achievement in Mathematics and English language of senior secondary school students in Anambra State.

### Research questions

The following research questions are posed to guide the study:

1. What is the relationship between emotional intelligence, self-esteem and academic achievement of secondary school students in Mathematics and English Language?
2. What is the relationship between emotional intelligence, self-esteem, gender and academic achievement of secondary school students in Mathematics?
3. What is the relationship between emotional intelligence, self-esteem, gender and academic achievement of secondary school students in English language?

### Hypotheses

The following null hypotheses guide the study and tested at 0.05 level of significance.

**H<sub>01</sub>:** There is no significant relationship between emotional intelligence, self-esteem, gender and academic achievement of secondary school students in Mathematics.

**H<sub>02</sub>:** There is no significant relationship between emotional intelligence, self-esteem, gender and academic achievement of secondary school students in English language.

### METHODOLOGY

Correlational research design was adopted for this study. The population of the study was made up of 10,573 year two senior secondary school (SSS2) students in the 263 public secondary schools in Anambra state (Post Primary School Service Commission, 2020). Anambra state has six (6) education zones. The sample for the study consist of 1,028 students (546 males and 482 females) obtained through non-proportionate stratified random sampling technique from 18 schools in Onitsha and Awka education zones (nine schools from each education zone). Instruments used for data collection include a structured questionnaire that was used to collect data on the student's emotional intelligence called Emotional Intelligence Questionnaire (EIQ), a Self-Esteem Inventory (SEI) and Mathematics and

English Language Achievement Test (MEAT). The Mathematics and English Language Achievement Test (MEAT) items were drawn from senior secondary school two (SSS2) scheme in the senior secondary education curriculum. Emotional Intelligence Questionnaire (EIQ) was adopted from the models as put forward by Mayer and Salovey (1999). Self-Esteem Inventory (SEI) was adopted from the models of Rosenberg Self-Esteem Scale as put forward by Gray-Little et al. (1997). A four point rating scale of Always, Frequently, Sometimes, and Never was attached and used to respond to each item. The instrument was face and content validated by three experts, from the Department of Educational Foundations Chukwuemeka Odumegwu Ojukwu University, Anambra State. The research questions were analysed using Pearson Product Moment Correlation Coefficient (Pearson  $r$ ) while hypothesis was tested at 0.05 level of significance using multiple regression. The SPSS version 23 was used to analyse the data.

### RESULTS

The results of the study are based on research questions and hypotheses are reported in Tables 1 to 5.

#### ***Research question 1: What is the relationship between emotional intelligence, self-esteem and academic achievement of secondary students in Mathematics and English language?***

Table 1 shows the relationship between the result of emotional intelligent and academic achievement in mathematics ( $r=0.884$ ) indicated a very strong positive relationship and emotional intelligence and academic achievement in English language ( $r=0.680$ ) indicated a strong positive relationship. The coefficient of determination ( $r^2=0.781$ ) explains that 78.1% total variability in academic achievement in Mathematics can be explained by emotional intelligence while coefficient of determination ( $r^2=0.462$ ) reveals that 46.2% of total variability in academic achievement in English Language can be explained by emotional intelligence.

In the same vein, the result of self-esteem and academic achievement in mathematics ( $r=0.733$ ) indicated a strong positive relationship and self-esteem and academic achievement in English language ( $r=0.532$ ) indicated a moderate positive relationship. The coefficient of determination ( $r^2=0.532$ ) explains that 53.2% of the total variability in academic achievement of mathematics can be explained by self-esteem while coefficient of determination ( $r^2=0.283$ ) reveals that 28.3% of total variability in academic achievement in English language can be explained by self-esteem.

**Table 1.** Coefficient (r) on the relationship between emotional intelligent, self-esteem and academic achievement on secondary school students in Mathematics and English Language.

Variation	N	Mathematics	English	r <sup>2</sup>	Remarks
Emotional Intelligence	1028	0.884		0.781	Very strong relationship
Self-esteem	1028		0.680	0.462	Strong relationship
	1028	0.733		0.532	Strong relationship
	1028		0.532	0.283	Moderate relationship

**Table 2.** Summary of regression analysis on the joint relationship between emotional intelligence, self-esteem, gender and academic achievement of secondary school students in Mathematics.

R	R Square	R <sup>2</sup> Adjusted	Remark
0.562	0.315	0.314	Moderate positive relationship

**Table 3.** Summary of regression analysis on the joint relationship between emotional intelligence, self-esteem, gender and academic achievement of secondary school students in English language.

R	R Square	R <sup>2</sup> Adjusted	Remark
0.656	0.430	0.429	High positive relationship

**Table 4.** Summary of regression analysis on the joint relationship between emotional intelligence, self-esteem, gender and academic achievement of secondary school students in Mathematics.

N	R	Rsquare	R <sup>2</sup> adjusted	df	Cal. F	p-value	Remark
1028	0.562	0.315	0.314	1026	514.79	0.000	S

\*S-significant.

**Research question 2: What is the relationship between emotional intelligence, self-esteem, gender and academic achievement of secondary school students in Mathematics in Anambra State?**

Table 2 shows that a moderate positive relationship of 0.562 exists among secondary school students' emotional intelligence, self-esteem, gender jointly with their academic achievement in Mathematics.

**Research question 3: What is the relationship between emotional intelligence, self-esteem, gender and academic achievement of secondary school students in English language in Anambra State?**

Table 3 shows that a high positive relationship of 0.656 exist among secondary school students' emotional intelligence, self-esteem, gender with their academic achievement in English language.

**H<sub>01</sub>: There is no significant relationship between emotional intelligence, self-esteem, gender and academic achievement of secondary school students in Mathematics in Anambra state**

Table 4 reveals that at 0.05 level of significance 3df numerator and 1026df denominator, the calculated F514.79 with p-value 0.000 which is less than 0.05, the null hypothesis is rejected. This implies that there is significant relationship between emotional intelligence, self-esteem, gender and academic achievement of secondary school students in Mathematics in Anambra State.

**H<sub>02</sub>: There is no significant relationship between emotional intelligence, self-esteem, gender and academic achievement of secondary school students in English language in Anambra state**

Table 5 reveals that at 0.05 level of significance 3df

**Table 5.** Summary of regression analysis on the joint relationship between emotional intelligence, self-esteem, gender and academic achievement of secondary school students in English language.

N	R	Rsquare	R <sup>2</sup> adjusted	df	Cal. F	Pvalue	Remark
1028	0.656	0.430	0.429	1026	314.122	0.000	S

\*S-significant.

numerator and 1026df denominator, the calculated F314.122 with p-value 0.000 which is less than 0.05, the null hypothesis is rejected. This implies that there is a significant relationship between emotional intelligence, self-esteem, gender and academic achievement of secondary school students in English language in Anambra State.

## DISCUSSION

The result of the analysis presented in hypothesis one showed that there is significant relationship between emotional intelligence, self-esteem, gender and academic achievement of secondary school students in Mathematics. Hypothesis two showed that there is a significant relationship between emotional intelligence, self-esteem, gender and academic achievement of secondary school students in English language.

This finding is in line with the findings of Oludipe(2012), Igboegwu and Okonkwo (2012) and Svetlana (2018) in relationship between emotional intelligence, and academic achievements of male and female secondary school students which revealed that male and female students performed equally in English language, males performed better than females in Mathematics, Science and Social Science while females also did better than males in Arts. Salami (2013) who investigated gender, self-esteem and academic achievement of university students which the result indicated that gender affect both self-esteem and academic achievement of students. The causes of gender differences can be attributed to some factors like parental influences, motivation, value orientations, interests, attitudes, stereotyping and school teacher issues that may influence females' achievement.

## Conclusion

Based on the findings of this study, it can be concluded that emotional intelligence and self-esteem of students do not affect their academic achievement. There is also no significant difference between emotional intelligence of male and female students. It is also concluded that emotional intelligence and self-esteem of female students is higher than that in male students in English language.

## Recommendations

Based on the findings, the following recommendations were made:

1. Secondary school teachers, educational psychologists and school counsellors should recognize that self-esteem and emotional intelligence are significant factors in the academic achievement of students and therefore fashion out programmes that will help build and maintain healthy self-esteem among their students so as to enable them achieve better academic excellence.
2. It was recommended that governments should organize seminar and workshop for teachers to enable them understand the concepts of emotional intelligence and self-esteem in order to build their own emotions and that of their students.
3. Teachers of mathematics and English language should encourage gender equality and this should encourage the use of techniques that build confidence in both males and females alike.

## CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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