

**FAMILY SOCIO-ECONOMIC- STATUS AND EMOTIONAL INTELLIGENCE AS PREDICTORS OF ACADEMIC ACHIEVEMENT AMONG PRIMARY SCHOOL PUPILS IN MATHEMATICS**

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**Abstract**

*The study investigated family socio Economic status and emotional intelligence as predictors of academic achievement among pupils in mathematics. Based on the purpose of the study three research questions guided the study. Descriptive survey research design was adopted for the study. The population of the study comprised of 1,243 primary six pupils from Alvan primary school in Owerri Municipal Council of Imo State. A sample of 300 primary six pupils was selected using simple random sampling technique. The instruments for data collection are Mangal Emotional Intelligence Inventory, Socio-economic Status Scale and Cumulative Grade Point Average (CGPA) in mathematics. The validity of the instruments was done by five experts, two from Measurement and Evaluation, Educational psychology and two from Mathematics Education. The reliability of the instruments was 0.73 and 0.81 determined using test retest method respectively. Data collected were analyzed using mean and standard deviation for the research questions. Results of the study indicated that Socio economic status together with Emotional intelligence have positive relationship with academic achievement of pupils in mathematics. One recommendation among others was that Parents should always try to encourage their children in all that they do and try to give moral support so that the children can be emotionally stable and have confidence in all that they do, whether at school or at home*

**Keywords:** Family Socio-Economic- Status, Emotional Intelligence, Academic Achievement and Mathematics

## **Introduction**

Mathematics is a science of magnitude and number as well as the science that sustains the daily practices of individuals. Competency in mathematics learning is vital and sustainable to every individual's meaningful and productive life. Mathematics learning is very important in enhancement and sustainability of human existence because mathematics is all about finding solutions to human problems and physical challenges. All these are indications that mathematics is useful in domestic and business deals, scientific discoveries, technological breakthrough, problem-solving and decision making in different situations in life (Usman and Nwoye, 2010; Unodiaku, 2011; and National Council of Teachers of Mathematics, (NCTM, 2013). It may be due to this vital usefulness of mathematics that Nigeria government made the study of mathematics compulsory at all the levels of the of education in Nigeria by National Policy on Education (2014) provision. Despite the importance accorded to mathematics the teaching and learning mathematics in Nigeria primary school level has continued to witness huge challenges. A multiple of causes for the pupil's low performance in mathematics has been attributed to: difficulty in understanding the specialized mathematical language (Barton & Heidema, 2002; O'Connor, Kanja & Baba, 2000), ineffective, teacher-centered teaching methods and learners' negative attitudes towards the subject (Miheso, 2012; Ngeno & Changeiywo, 2007), Learners lack of motivation to learn the subject (Githua & Mwangi, 2003) and lack of mathematics syllabus coverage (Shikuku, 2009). Other factors that have contributed to this low academic achievement include; lack of cooperation by the stakeholders, social background of the students while Jeynes (2010) has attributed the major cause of poor performance among pupils in mathematics to family socio economic status and emotional intelligence.

Family socio – economic status is a collective terminology comprising of parents' educational level, occupation and other factors pertaining to family life. Farley (2003) and Eitzen & Smith, (2003) pointed out that a family's socio-economic status is based on the parent income, occupation and education level. Family Socio-economic status is the position that an individual or family occupies with reference to the prevailing average standard of cultural possessions, effective income, material possessions and participation in group activity of the community Chapin (2013). Bearing the same Kulshrestha in Razia & Ahmad (2017) defined Socio-economic status as any group of persons coming closer to each other on the continuum of occupation, income, education and culture. The Family influences their children in many ways one crucial area the family influence a child's life is in the development of his/her emotional intelligence.

Emotional intelligence is an intelligence having to do with understanding emotional information. It is the ability to process emotional assimilation, and management of emotion. Salovey and Mayer (1990) viewed emotional intelligence as a type of social intelligence that involves the ability to monitor one's own and others' emotions and to use the information to guide thinking and actions. Also, emotional intelligence is defined as the composite set of capabilities that enable a learner to manage himself/ herself and others (Goleman, in Ugochukwu, Onyekwere & Unamba, 2018) while Boyatzis, Goleman and Rhee (2000) defined it as the ability to: 1) be aware to understand and to express oneself; 2) be aware of, to understand, and to relate to others, 3) deal with strong emotions and control one's impulses; and 4) adapt to change and to solve problems of a personal or a social nature. Emotional intelligence has five components which are: self-awareness, self-regulation, motivation, empathy and social skills. The first component of emotional intelligence is self-awareness which means, "having a deep understanding to one's emotions, strengths, weaknesses, needs and drives" (Goleman, in Ugochukwu, Onyekwere & Unamba,2018)). The author further stressed that students who possess this quality avoid the extremes of being overly crucial and unrealistically hopeful. Furthermore, these students know how their feelings affect them, others and their performance (Goleman. 1995 in Ugochukwu, Onyekwere & Unamba, 2018)). The second component of emotional intelligence is self-regulation. This is an ongoing conversation student have with themselves, which frees them from being prisoners of their feelings (Goleman, in Ugochukwu, Onyekwere & Unamba, 2018)). Students who have high degree of self-regulation have much capability of facing the ambiguities of an advancing industry than those who has low degree of self-regulation. The integrity of a home can be enhanced with the help of high level of self-regulation. Students with high level of self-regulation do not make bad decisions through impulsive behaviours. Self-regulation will help learners to make thoughtful decisions, which stay in control of their feelings. The third component of emotional intelligence is motivation, which extends to the deep inner desire to achieve for the sake of achievement. Motivated students want to achieve beyond their and everyone else's expectations. Motivation makes students restless; therefore, they continuously explore new horizons to find better ways of doing their learning and assignments. Highly motivated students remain optimistic even though they have experienced failure or a setback. Motivated students are committed to succeed in its goals and objectives. The fourth component of emotional intelligence is empathy which means to be considerate and aware of other's feelings. Empathic students are also effective in retaining talent because they are able to develop

personal rapport with others. The last component of emotional intelligence is social skills. Students use their friendliness in order to have people do what they want. Social individual is an effective persuader in the school.

Academic achievement is the outcome of education or the extent to which a student, a teacher and an institution have achieved their educational goals. Academic achievement refers to the extent to which learners acquire the knowledge, skills and proficiencies that the instructor seeks to teach or assign. Academic achievement is commonly measured by examination or continuous assessment but there is no general agreement on how it is best tested or which aspects is more important procedural knowledge such skills or declarative knowledge such as facts. Researchers like Harikrishan (1992) revealed that Socio-economic status was significantly and positively related to academic achievement of students in education courses. Goswami (1982) in Preeti & Garima (2015) found that socioeconomic status group has positive relationship in the achievement tests of science, languages and humanities students. A significant difference was found in academic achievement and socioeconomic status of students studying in different types of schools Panda (1998) Preeti & Garima (2015). Stanslaus (2016) investigated influence of parental socio-economic status on students' academic performance in public secondary schools in Tana River County, Kenya. Results of the study showed that socio economic status have positive relationship with students' achievement. Josephine, Damaris & Patriciah (2015) investigated Influence of Parents Economic Status on Girls' Academic Performance in Mixed Day Secondary Schools. Results of the study showed that economic status influenced girl's academic performance in mixed day secondary schools. Osuafor and Okonkwo (2013) investigated Influence of Family Background on Academic Achievement of Secondary School Biology Students in Anambra State. The results revealed that family structure, parents' occupation and educational level of parents, did not have significant influence on students' achievement in biology. Alordiah, Akpadaka & Oviogbodu (2015) investigated Socio-Economic Status on Students' Academic Achievement in mathematics. Results showed that socio status have positive relationship with academic performance in mathematics. Gunendra & Sujana (2017) examine Effect of Socioeconomic status on performance in Mathematics among students of secondary schools of Guwahati city. Results showed that parents' socioeconomic status affects their children's performance in the subject. Alade, Nwadingwe, & Igbinosa (2014) Socio-Economic Status and Gender as Predictors of Students' Academic Achievement in Economics the results showed that There is significant relationship between parental educational attainment and students' academic achievement in Economics; There is

prominent association between occupational background of parents and student's academic achievement; There is significant difference in the mean scores between Socio- Economic Status and Students' academic achievement due to gender and there is significant association between parental socio-economic status (SES) and academic achievement.

Preeti & Garima (2015) investigated Impact of socioeconomic status on academic-achievement of school students. Results showed that the academic achievement was influenced by the socioeconomic status. Bell (2008) conducted a study to examine the relationship between emotional intelligence and academic achievement in African American female college students. From the study it was found that emotional intelligence of those students was not significantly correlated with their academic achievements. Ogundokun and Adeyemo (2010) investigated the influence of emotional intelligence, age and academic motivation on academic achievement of the students at secondary level. They found emotional intelligence have positive relationship with academic achievement. Another study on Emotional Intelligence and Students' Academic Performances was undertaken by Adnan, Chsudhry & Malik (2012). The result indicated that emotional intelligence have positively correlated with their academic performances. Bhadouria (2013)examine the relationship between emotional intelligence and academic achievement. He found out that the emotional intelligence was positively correlated with academic achievement. Chandramohan (2015) made a study on emotional intelligence and academic achievement of higher secondary students. Their study revealed that the emotional intelligence was significantly correlated with academic achievements. The study also showed higher emotional intelligence and higher academic performances of the students of central board school in comparison to the students belonging to state board. Prabha (2015) made a study to find out the relationship between emotional intelligence and academic achievement at higher education level. Also, Marquez, Martin and Brackett (2006); Jatinder (2014) found significant correlation between Emotional intelligence and Achievement scores while Nelson and Low (2004) in one of their studies emphasized that Emotional intelligence skills have a great impact on students' achievement and retention especially during transition period of high school graduates in the first year of college. The present research examines whether family socio-economic status and emotional intelligence acts as a significant contributor of academic achievements among primary school pupils in mathematics. The objectives of the present study are as follows;

1. To determine the level of socioeconomic status, Emotional intelligence and Academic achievement of primary school pupils in mathematics.

2. To see the relationship among the variables Emotion a intelligence, Socio-economic status and Academic achievement.
3. To find out the predictive value of Emotional intelligence and Socio-economic status on the Academic achievement of adolescents.

### **Research Questions**

The following research questions guided the study;

- i. What is the level of socioeconomic status, Emotional intelligence and Academic achievement among pupils in mathematics?
- ii. What is the relationship among the variables, Socio-economic status, Emotional intelligence and Academic achievement of pupils in mathematics?
- iii. What is the predictive value of Socio-economic status, Emotional intelligence on the Academic achievement of pupils in mathematics?

### **Method**

This study adopted a descriptive survey design. This is where the relationship between variables is studied without manipulating them. The study is carried out in Owerri Municipal council Area of Imo State .The population of this study consists of all 1,456 primary six in Alvana primary school in Owerri Municipal Council of Imo- State. A sample of 300 primary six was selected using simple random sampling technique. The instruments used for data collection are Mangal Emotional Intelligence Inventory (MEII). The Emotional Intelligence Inventory constructed and standardized by Mangal and Mangal (2012) was employed to measure the Emotional intelligence of the pupils. It consists of 100 items depicting five areas self-awareness, self-regulation, motivation, empathy and social skills. Socio-economic Status Scale (SESE) by Kalia and Sahu (2012) were adapted and the scale comprises of 40 items with five dimensions of socio-economic status viz. Parental educational level, parental occupation, family environment, family type and parental encouragement. Academic Achievement of the pupils in mathematics was measured using Cumulative Grade Point Average (CGPA) obtained by pupils in their primary five final examinations. The Face and content validity of the instruments was done five experts, two from educational psychology one from Measurement and Evaluation and two from mathematics education. The reliability of the MEII were determined by test- retest method which yielded an index of 0.92 while SESES were found to be 0.82. Data collected were analyzed using mean, standard deviation and multiple regression analysis for the research questions.

## Results

**Research Question1:** What is the level of socioeconomic status, Emotional intelligence and Academic achievement among pupils in mathematics?

**Table 1** Mean and standard deviation on level of socioeconomic status, Emotional intelligence and Academic achievement among pupils in mathematics.

Variables	Mean	SD
Socioeconomic status (SES)	80.25	2.43
Emotional intelligence (EI)	69.56	1.62
Academic achievement (ACH)	84.32	3.21

Results in table 1 indicated that the mean score on socioeconomic status is 76.25, Emotional intelligence 69.56 and Academic achievement among pupils in mathematics 84. 32. This indicated that primary school pupils have high level in the variables.

**Research Question 2:**What is the relationship among the variables, Socio-economic status, Emotional intelligence and Academic achievement of pupils in mathematics?

**Table 2:** Correlation Matrix of Socioeconomic status, Emotional intelligence and Academic achievement.

variables	SES	EI	ACH
Socioeconomic status (SES)	1	.567	.674
Emotional intelligence (EI)		1	.567
Academic achievement (ACH)			1

Results in table 2 that socioeconomic status (SES)shows significant positive correlation with emotional intelligence.567 as well as Academic achievement .674 at .05 level of significance.

**Research Question 3:** What is the predictive value of Socio-economic status, Emotional intelligence on the Academic achievement of pupils in mathematics?

**Table3:** Composite Effect of Independent Variables on pupils' Achievement in Mathematics

Multiple R = Adjusted R Square =	.191 R Square = .037 .016 Standard Error = 50.52				
Analysis of variance					
Source of Variation	SS	D	MS	F	P
<b>Regression</b>	4074	9	4527.051		

From table 3 coefficient of determination (Adjusted  $R^2$ ) = 0.016 and this gives proportion of variance (Adjusted  $R^2 \times 100$ ) = 1.6%. This implies that the independent variables accounted for 1.6% of the variance in the dependent variable. The joint effect of socio economic status and emotional intelligence is not significant on the students' achievement in Mathematics ( $F=1.774$ ;  $df(9,420)$ ;  $P>0.05$ )

### Discussion

The results of the present research study indicated the importance of Socio-economic status and Emotional intelligence in predicting Academic achievement of pupils in mathematics. It was observed that socioeconomic status was at high level and Emotional intelligence of pupils falls in the average range. This is in accord with the findings of Nelson and Low (2004) in one of their studies emphasized that Emotional intelligence skills have a great impact on students' achievement and retention especially during transition period of high school graduates in the first year of college.

Also, the study indicated that Socio economic status and Emotional intelligence of pupils were found to be significant predictors of Academic achievement in mathematics. This results is in line with the findings of Harikrishan (1992), Goswami (1982), Panda (1998), Stanslaus (2016), Osuafor and Okonkwo (2013), Caroline, Grace & Christy (2015) and Alade, Nwadingwe, & Igbiosa (2014) found that Socio-Economic Status have positive relationship with Students' Academic Achievement in Economics. The results showed that there is significant relationship between parental educational attainment and students' academic achievement in Economics; there is prominent association between occupational background of parents and student's academic achievement and Bell (2008), Ogundokun and Adeyemo (2010), Adnan et al. in 2012, Bhadouria (2013), Chandramohan (2015), Probha (2015), Marquez, Martin and Brackett (2006); Jatinder (2014) found significant correlation between Emotional intelligence and Achievement scores of students in different fields.

Finally the study indicated that Socio economic status together with Emotional intelligence contributes to 18.2% variance in Academic achievement with Socio economic status emerged at the top with 14.4 % variance in Academic achievement. This result agreed with Peter (2016) Family Structure attributed good performance of learners with small percentage as shown by 92(30%).

### **Conclusion**

This study reveals that Socio economic status together with Emotional intelligence have positive relationship with academic achievement of pupils in mathematics.

### **Recommendation**

1. Parents should always try to encourage their children in all that they do and try to give moral support so that the children can be emotionally stable and have confidence in all that they do, whether at school or at home.
2. Mathematics teachers should put into consideration effective strategies of teaching mathematics as the results found positive relationship with academic achievement among students.

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