Emotional Intelligence and Achievement of Students in Mathematics: A Case Study

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Abstract: *Emotional intelligence is a cross-section of integrated emotional, social capabilities and skills that regulate how successfully people recognize and express their emotions, recognize others feelings and relate with them, and handle daily stresses or pressures, effectively. In this study of survey research, the relationship between emotional intelligence, as measured by Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) and mathematics achievement were examined in a sample of secondary school students, numbering 312. The study was conducted in Jalingo Education Zone of Taraba State, Nigeria. Four specified domains of emotional intelligence domains namely: self-awareness, self-management, social-awareness and relationship management separately as well as totally was found to correlate with achievement in mathematics of the selected respondents. The study evidently showed that emotional intelligence and its four domains have weak correlations with academic achievement and account for less than 1% of students' achievement in mathematics. The study concludes that that there is a close connection between emotional intelligence and academic achievement, even though the correlation is not significant.The study recommends that attentions need to be directed to the development of the affective domain of the students, as a way of finding solutions to the poor academic achievement of students in mathematics.*

Keywords: achievement, emotional-intelligence, self-awareness, self-management, social-awareness, relationship management

1. Introduction

The desire of any educational system is to produce students who are sufficiently trained to contribute meaningfully to the development of the system and the society in general. The effectiveness of any educational system, according to Pandith, Malik and Ganai (2011) is gauged by the extent to which the students involved in the system achieve, whetherin cognitive, affective or psychomotor domain.

Academic achievement, thus, occupies a very important place in education as well as in studying and learning process (Aasia, 2018). It indicates the learning outcome of the pupils. According to Levy as cited by Kumari and Chamundeswari (2013) academic achievement is based on a number of factors, such as children's attitudes, interest, personality characteristics and social class in addition to learning.

The academic achievement of students has always been measured using the traditional intelligence tests or other forms of standardized examination. This measure has only investigated academic achievement with relation to cognitive processes and personality factors. It was believed that successful cognitive processing could not occur at the same time as emotional processing. However, the past few decades have witnessed the advent of many new psychological measures. New theories of intelligence have been introduced and are gradually replacing the traditional theory. The whole child has become the center of concern, not only his reasoning capacities, but also his creativity, emotions and interpersonal skills.

According to Fatum (2008) emotions have been thought to be peripheral to the process of learning. In view of this,Azuka (2012) posits that there is a connection between emotion and cognition.Going by the view of Mayer, Salovey and Caruso (2000), emotion is one of the three fundamental classes of mental operations which include motivation,

emotion and cognition. Fazura and Ghazali (2003) are of the notion that having positive quality emotions and feelings help students to achieve and give their best potential in the classroom. Thus, teachers should understand that any stress on the affective domain of the learners would affect their cognitive domain in classroom. In view of this, teaching emotional and social skills at school is important as these skills have long term effects on achievement. The current trend now is to focus on how emotions, in particular emotional intelligence (EI), may enhance decision making and academic success (Rilea, 2007). Humphrey, Curran, Morris, Farrell, and Woods (2007)suggest that cognitive and emotional processing cannot be separated, and that emotional processing is an important component of rational thought, as long as the emotions are not in excess.

Emotional Intelligence (EI) has been defined as the ability to empathize, persevere, control impulses, communicate clearly, make thoughtful decisions, solve problems, and work with others in a way that earns friends and success (Fatum, 2008). These abilities allow an individual to recognize and regulate emotion, develop self-control, set goals, develop empathy, resolve conflicts, and develop skills needed for leadership and effective group participation (Elias, 2004).Emotional intelligence is a confluence of developed abilities to know and value self, build and maintain a variety of strong, productive and healthy relationships, get along and work well with others in achieving positive results and effectively deal with the pressures and demands of daily life and work (Maraichelvi&Rajan, 2013).A brain research has defined EI as a measurable connection in the human brain between responses to emotions and their influence on one's actions (Bradberry & Greaves, 2005).

The concept of emotional intelligence (EI) first featured in educational discuss in 1990 in the work of psychologists Peter Salovey and John Mayer (Mayer & Salovey, 1990). Emotional intelligence became a popular educational construct with the work of Daniel Goleman

(Goleman,1995). Although different approaches depict distinct aspects of EI, a common concern of these approaches consists in explaining the influence of EI in various contexts. While some enthusiasts were claiming that EI quotient plays a more important role in predicting life success, compared to cognitive intelligence quotient (Goleman, 1995), other authors considered some of the statements on EI grandiose (Zeidner, Matthews & Roberts, 2009)**.**

Emotional-intelligence is premised on three theories (Bar-On, 2000; Goleman, 1995, 1998; Mayer, Caruso, & Salovey, 1997; Mayer, Salovey, & Caruso, 2002). Each of these theories developed in the last 2 decades was an attempt to explain the abilities, traits, and competencies associated with emotional intelligence. Initially, Salovey and Mayer (1990) divided EI abilities into five main domains. Knowing one's emotions involves self-awareness in recognizing a feeling as it happens. Mayer and Salovey proposed that an inability to notice emotions leaves individuals at the mercy of those emotions. Managing emotions refers to the ability to handle feelings, to self-soothe, and to deal with negative emotions. Individuals who demonstrate this skill bounce back much more quickly from life's difficulties. Motivating oneself involves utilizing emotions to pay attention, to delay gratification, and to achieve mastery. Recognizing emotions in others, an ability often labeled as empathy, builds emotional self-awareness. Recognizing others' emotions is the first step to good relationships with others and includes active listening to others and an ability to understand another's perspective and feelings. Handling relationships, the final step in this theoretical approach to EI competence, involves managing emotions in others. This EI ability is often referred to as social competence.

Goleman (1995) reviewed the information available on the effects of EI and eventually popularized the concept of EI and, in doing so, muddled the theoretical understanding of EI. Goleman's initial work was misinterpreted to suggest that EI accounts for much of the 80% of the variance in success in life that IQ does not account for. In more recent books, Goleman has sought to define EI competencies as they related to success in the workplace (Goleman, 1998). Goleman later expanded the range of emotional competencies in applying his theory to the workplace (Goleman, Boyatzis, & McKee, 2002). EI, in this theoretical model, is defined as competencies in four broad areas: self-awareness, self-management, awareness of others and empathy, and management of social relationships. Goleman's (1998) model of EI offered a framework for analyzing how an individual's potential for mastering the skills of self-awareness, self-management, social awareness, and relationship management helped to determine success or failure in the workplace. Detailed explanation of these four domains of emotional intelligence is contained in Fatum (2008). Self-awareness refers to an individual's competency in naming emotions and being aware of personal emotional impact. It also has to do with ability to read and understand one's own emotions and moods. Self-management refers to an individual's competency in managing behavioral tendencies that result from emotional interpretation. It can also be referred to the ability to control ones' emotions, and to behave reliably. Social awareness involves competency in

understanding other people's behavior and motives and developing empathy for others. It also refers to ability to read other people's emotions and to understand their perspective. Relationship management is the ability to use awareness of personal emotions and those of others to manage interactions successfully (Bradberry & Greaves, 2005). Personal competencies are demonstrated through self-awareness and self-management; social competencies are demonstrated through social awareness and relationship management (Fatum, 2008).

Emotional intelligence can be considered a mental ability that involves the ability to reason validly with emotional information, and the action of emotions to enhance thought (Zhou, 2010). Goleman (1995) had suggested that emotional intelligence can predict academic success better than traditional measures of intelligence. Numerous studies followed and highlighted that EI can exert a significant degree of influence in social/interpersonal context (Schutte et al., 2001), academic context (Parker, Summerfeldt, Hogan, &Majeski, 2004) and occupational setting (Caruso & Wolfe, 2001). The study of Elias (2004) indicates that emotional intelligence is a necessary component of any educational community. However, research conducted to fully understand the impact that emotional intelligence may (or may not) have on academic success are insufficient (Zeidner, Roberts, & Matthews, 2002).

In addition to this, there are conflicting research evidence regarding the relationship between emotional intelligence and academic achievement. For instance, Newsome, Day, and Catano (2000) used the EQ-i as a measure of emotional intelligence and found no correlation between academic performance and emotional intelligence but did find correlations between emotional intelligence and personality which appeared to be overlapping constructs. Parker, Summerfeldt, Hogan, and Majeski (2004) found significant correlations between three subscales of the EQ-i (stress management, adaptability, and intrapersonal abilities) and GPA at the end of the first year of college. However, overall emotional intelligence scores, as measured by the EQ-i, did not correlate to GPA. Additionally, not all researchers have observed correlations between academic performance and score on the EQ-i. Azuka (2012) found significant low positive relationship between the emotional intelligence of students and their academic achievement in mathematics. Meshkat (2011) found a coefficient of correlation of 0.161 which is significant at 0.05 level of significance but indicates no significant relationship between EI and academic success.

The conflicting evidence may be, in part, a result of the great variability in emotional intelligence measures available (Jensen et al. 2007) and partly depending on the operationalization of the academic performance variable (Jaeger & Eagan, 2007). According to Jensen et al. (2007), research that uses the Assessing Emotions Scale (AES) found small correlations between emotional intelligence and GPA, ranging from correlations of 0.20 to 0.32.

In Nigeria, not much has been done on the relevance of emotional intelligence in the education sector and in the teaching of mathematics. As such, many teachers,

educationists, schools and students in Nigeria have little or no idea of emotional intelligence and its effects on learning. This accounts for the dearth of literature on this subject in Nigeria. Many of the research efforts in considering factors affecting success in secondary schools in Nigeria often neglects the role of non-cognitive variables including emotional intelligence (EI). Hence, EI is not part of the curriculum of any subject including mathematics. This gap in knowledge exists in the midst of poor performance of students in schools in mathematics, in Nigeria, where only 27.31% of students obtained credit and above (A1- C6) while 72.69% had pass and below (D7-F9) in the May/June WASSCE in general mathematics (Zalmon&Wonu, 2017). This persistent poor achievement has been a source of worry for researchers and stakeholders of mathematics education, thus leading to several efforts to diagnose the problems and proffer solution to the poor achievements in the subject, which include the identification of teaching methods and learning strategies to make the study of mathematics interesting and improve students' achievements. Research in brain-based learning, according to Azuka (2012) suggests that emotional intelligence is fundamental to effective learning. Meshkat (2011) posits that emotional intelligence alone accounts for more than 80% of a person's success.These statements have attracted attention of educators and educational policy makers. It is in the light of this, that this study examined the four domains of emotional intelligence (Goleman, 1998) separately as well as the overall emotional intelligenceof students, vis-à-vis the extent of its relationship on their academic achievement in mathematics, in Jalingo education zone.

2. Hypotheses

The study was guided by five hypotheses, which were tested at 0.05 level of significance.
Hypothesis one: There is no significant relationship between student's self-awareness and achievement in mathematics.
Hypothesis two: There is no significant relationship between students' self-management and achievement in mathematics.
Hypothesis three: There is no significant relationship between students' self-management and achievement in mathematics.
Hypothesis four: There is no significant relationship between students' relationship management and achievement in mathematics.
Hypothesis five: There is no significant relationship between student's emotional intelligence and achievement in mathematics

3. Methodology and data analysis

The study used correlational survey design. The design was considered appropriate for the study because it will establish nature of relationship that exists between emotional intelligence and students' academic achievement in mathematics. The sample of the study is made up of 312 students from 6 out of 38 senior secondary schools in Jalingo Education Zone of Taraba State. The multistage sampling involving purposive, stratified and simple random sampling was adopted. The study used two instruments for data collection. They are Emotional Intelligent Self-Assessment Scale (EISS) and Academic Achievement Test

(AAT). The EISS is adapted from Mayer-Salovey-Caruso Emotional Intelligence Test, MSCEIT (Mayer, Salovey, & Caruso, 2002). It is made up of 20 items that are measured on a 5-point Likert scale. The items consist of series of statements reflecting four areas of emotional intelligence, which are self-awareness, self-management, social awareness and relationship management. The four areas aim to produce four composite scale scores and are combined to obtain a total EI score with the full points of 100. Scores are first calculated for each domain of EI, which reveals the current level in each of the four domains that make up emotional intelligence. The sum of the skill scores is then transferred to the overall EI score. The higher the respondent's score the higher the agreement and positive correlation with increased degree of emotional intelligence. Academic Achievement Test (AAT) is made up of 40 items that were adapted from the Senior School Certificate Examination (SSCE) questions papers of the West African Examination Council (WAEC) and National Examination Council (NECO).The internal consistency reliability index of 0.79 for EISS was calculated using Cronbach alpha statistic, while that of AAT which is 0.85 was calculated using KR-20 formula.

Data analysis was done using regression analysis to know if there isa relationship between emotional intelligence and academic performance based on the four independent variables of emotional intelligence. The regression analysis was further used to explain how much each set of the independent variables (self-awareness, self-management, social awareness and relationship management) is able to predict students' achievement in mathematics (dependent variable). It also tells how much unique variance each of the independent variables explains the dependent variable, over and above the other independent variable in the set.

4. Results and Discussion

Table 1: Relationship between the academic achievement in mathematics and the self-awareness of students

Level	N	EI score		Mathematics score		r	p-value	Decision
		mean	std dev	mean	std dev			
Very low	nill	nill	Nill	nill	nill	0.019	0.370	Not Significant
Low	5	63.20	6.06	34.00	6.52			
Medium	17	65.53	6.70	34.41	20.38			
High	124	68.80	7.12	37.74	17.95			
Very high	166	77.54	7.98	37.05	18.55			

Results of Table 1 show that the mathematics mean achievement scores of students with low self-awarenessis 34.00 with a standard deviation of 6.52 while their mean emotional intelligence score is 63.20 with a standard deviation of 6.06. The mean mathematics achievement score of the students with medium self-awareness is 34.41 with a standard deviation of 20.38 and mean emotional intelligence score of 65.53 with a standard deviation of 6.70. Students with high self-awareness have a mean mathematics achievement score of 37.74 with a standard deviation of 17.95 and mean intelligence score of 68.80 with a standard deviation score of 7.12.The mean mathematics achievement score students with very high self-awareness is 37.05 with a

standard deviation of 18.55 and emotional intelligence mean score of 77.54 with standard deviation of 7.98.

The standard deviations of mathematics achievement score show that scores are very far apart from the mean score, while the standard deviations of emotional intelligence score show that scores are not very far apart from the mean score. The results also show that students with low level of self-awareness have the least mean scores both in mathematics and overall emotional intelligence. It is however worthy of note that the mathematics mean achievement score of students with high level of self-awareness (37.74)is slightly higher than those in the very high level (37.05) level. The correlation coefficient between the mathematics achievement scores and self-awareness scores of students is 0.019, and the p-values of 0.370 shows that the correlation is not significant at 0.05 level.

Table 2: Relationship between the academic achievement in mathematics and the self-management of students

Level	N	EI score		mathematics score		r	p-value	Decision
		mean	std dev	mean	std dev			
Very low	4	59.25	6.65	52.50	29.86	0.052	0.182	Not significant
Low	15	62.13	7.38	37.33	14.13			
Medium	27	65.11	8.26	35.00	13.01			
High	178	71.72	6.39	36.46	16.57			
Very high	88	81.13	7.14	38.41	22.42			

Results of Table 2 show that the mathematics mean achievement scores of students with very low self-management is 52.50 with a standard deviation of 29.86 while their mean emotional intelligence score is 59.25 with a standard deviation of 6.65. The mean mathematics achievement score of the students in the low level of self-management is 37.33 with a standard deviation of 14.13 and mean emotional intelligence score of 62.13 with a standard deviation of 7.38. Students in the medium level of self-management have a mean mathematics achievement score of 35.00 with a standard deviation of 13.01 and mean intelligence score of 65.11 with a standard deviation score of 8.26. The mean mathematics achievement score students in the high level of self- management is 36.46 with a standard deviation of 16.57 and emotional intelligence mean score of 71.72 with standard deviation of 6.39. Students with very high level of self- management have a mean mathematics achievement score of 38.41 with a standard deviation of 22.42 and mean intelligence score of 81.13 with a standard deviation score of 7.14.

The standard deviations of mathematics achievement score show that scores are very far apart from the mean score, while the standard deviations of emotional intelligence score show that scores are not very far apart from the mean score. The results also show that students with very low level of self-management have the highest mean scores both in mathematics, whereas students with very high level of self-management have the highest overall mean emotional intelligence. The correlation coefficient between the mathematics achievement scores and self-management scores of students is 0.052, and the p-values of 0.182 shows that the correlation is not significant at 0.05 level.

Table 3: Relationship between the academic achievement in mathematics and the social-awareness of students

Level	N	EI score		mathematics score		r	p-value	Decision
		mean	std dev	mean	std dev			
Very low	5	55.60	5.89	31.00	8.94	0.085	0.068	Not significant
Low	9	60.78	6.04	36.11	14.31			
Medium	31	65.48	5.63	32.74	12.96			
High	162	70.88	6.31	35.96	17.18			
Very high	105	80.91	6.88	40.62	21.18			

Results of Table 3 show that the mathematics mean achievement scores of students with very low level of social-awareness is 31.00 with a standard deviation of 8.94 while their mean emotional intelligence score is 55.60 with a standard deviation of 5.89. The mean mathematics achievement score of the students in the low level of social-awareness is 36.11 with a standard deviation of 14.31 and mean emotional intelligence score of 60.78 with a standard deviation of 6.04. Students with medium level of social-awareness have a mean mathematics achievement score of 32.74 with a standard deviation of 12.96 and mean intelligence score of 65.48 with a standard deviation score of 5.63. The mean mathematics achievement score students in the high level of social-awareness is 35.96 with a standard deviation of 17.18 and emotional intelligence mean score of 70.88 with standard deviation of 6.31. Students with very high level of social-awareness have a mean mathematics achievement score of 40.62 with a standard deviation of 21.18 and mean intelligence score of 80.91 with a standard deviation score of 6.88.

The standard deviations of mathematics achievement score show that scores are very far apart from the mean score, except that of the very low level of social-awareness, while the standard deviations of emotional intelligence score show that scores are not very far apart from the mean score. The results also show that students with very low level of social-awareness have the least mean scores both in mathematics and in overall mean emotional intelligence. However, students in the low level of social-awareness came second to those in the very high level of social-awareness in mathematics achievement, to beat those in the medium and high-level categories. The correlation coefficient between the mathematics achievement scores and social-awareness scores of students is 0.085 and not significant at 0.05 level, since p-value is 0.068.

Table 4: Relationship between the academic achievement in mathematics and the relationship management of students

Level	N	EI score		mathematics score		r	p-value	Decision
		mean	std dev	mean	std dev			
Very low	2	61.00	15.56	57.50	10.61	0.003	0.479	Not significant
Low	14	63.07	7.52	31.43	10.64			
Medium	23	64.43	6.58	32.17	11.76			
High	162	70.91	6.71	38.09	18.38			
Very high	111	79.80	7.54	37.12	19.64			

Results of Table 4 show that the mathematics mean achievement scores of students with very low relationship-management is 57.50 with a standard deviation of 10.61 while their mean emotional intelligence score is 61.00 with a standard deviation of 15.56. The mean mathematics achievement score of the students in the low relationship-management is 31.43 with a standard deviation of 10.64 and mean emotional intelligence score of 63.07 with a standard deviation of 7.52. Students with medium relationship-management have a mean mathematics achievement score of 32.17 with a standard deviation of 11.76 and mean intelligence score of 64.43 with a standard deviation of 6.58. The mean mathematics achievement score students with high relationship-management is 38.09 with a standard deviation of 18.38 and emotional intelligence mean score of 70.91 with standard deviation of 6.71. Students with very high relationship-management have a mean mathematics achievement score of 37.12 with a standard deviation of 19.64 and mean intelligence score of 79.80 with a standard deviation score of 7.54.

The standard deviations of mathematics achievement score show that scores are very far apart from the mean score while the standard deviations of emotional intelligence score show that scores are not very far apart from the mean score, except that of the very low relationship-management. The results also show that students with very low relationship-management have the highest mean scores in mathematics and those with low relationship management have the least mean mathematics achievement score. The students with very high relationship-management recorded the highest mean emotional intelligence while those with very low relationship-management recorded the least. The correlation coefficient between the mathematics achievement scores and relationship-management scores of students is 0.003 and not significant at 0.05 level, since p-value is 0.479.

Table 5: Relationship between the academic achievement in mathematics and the overall emotional intelligence of students

Level	N	EI score		mathematics score		r	p-value	Decision
		mean	std dev	mean	std dev			
Very low	nill	nill	nill	nill	nill	0.058	0.306	Not significant
Low	3	50.00	0.00	43.33	7.64			
Medium	16	56.81	1.97	35.63	19.31			
High	176	68.97	4.08	35.77	15.96			
Very high	117	82.36	4.89	39.23	21.21			

Results of Table 5 show that the mathematics mean achievement scores of students with low emotional intelligence is 43.33 with a standard deviation of 7.64 while their mean emotional intelligence score is 50.00 with a standard deviation of 0.00. Students with medium emotional intelligence have a mean mathematics achievement score of 35.60 with a standard deviation of 19.31 and mean emotional intelligence score of 56.81 with a standard deviation of 1.97. The mean mathematics achievement score students with high emotional intelligence is 35.77 with a standard deviation of 15.96 and emotional intelligence mean score of 68.97 with standard deviation of 4.08. Students with very high emotional intelligence have a mean mathematics achievement score of 39.23 with a standard deviation of 21.21 and mean intelligence score of 82.36 with a standard deviation score of 4.9.

The standard deviations of mathematics achievement score show that scores are very far apart from the mean score, except that of the students with low emotional intelligence while the standard deviations of emotional intelligence score show that scores are not very far apart from the mean score. The results also show that students with low emotional intelligence have the highest mean scores in mathematics, followed by those with very high emotional intelligence. The correlation coefficient between the mathematics achievement scores and emotional intelligence scores of students is 0.058 and not significant at 0.05 level, with a p-value of 0.306.

Table 6: Regression Model Summary[b]

Model	R	R Squared	Adjusted R Square	Std. Error of the Estimate
1	0.095[a]	.009	.-0.004	4.599860

a. Predictors: (Constant), self-awareness, self-management, social-awareness, relationship-management
b. Dependent Variable: mathematics achievement score

Results in Table 6 show that a coefficient of determination value (R Square) of .009 was obtained which shows that only 0.9 percent of the variance in students' performance in mathematics can be attributed to self-awareness, self-management, social-awareness and relationship-management domains of emotional intelligence, as captured by the regression analysis. This R Square value is too low to be useful, therefore, the combined contribution of these four domains of emotional intelligence to academic performance of the students, in mathematics is, virtually, almost, non-existent (only .09 percent).

5. Discussion of findings

Four domains of emotional intelligence, self-awareness, self-management, social-awareness and relationship-

management serve as predictors in a standard multiple regression analysis to investigate their relationship and students' academic achievement in mathematics. The correlations of the predictorswith achievement in mathematics are very weak, though positive, and not statistically significant. Also, the correlation between achievement in mathematics and the aggregate emotional intelligence measure is also weak and not statistically significant.

The findings of this study are in agreement with Click (2002) where academic achievement (GPA) of students correlated with self-awareness, self-management, social-awareness, social-skills and aggregate emotional intelligence are very weak and not statistically significant. The findings also agree with earlier studies of Catano (2000) and Summerfeldt, Hogan and Majeski (2004) on no significant relationship between emotional intelligence and academic performance.This study also agrees with very recent studies of Meshkat (2011) that emotional intelligence and academic success are not significantly correlated. The finding of this study partly agrees with Azuka (2012) that there is low positive relationship between emotional intelligence and mathematics achievement but differ on statistical significance of the relationship. The finding of this study also agrees with Fatum (2008) and Mahsome (2013) that there is no statistically significant relationship between emotional intelligence academic achievement in mathematics.

The study shows that students with low self-awareness and social-awareness have the least mean scores in mathematics as well as in aggregate emotional intelligence. Students with low self-management and relationship management are seen to have highest mean achievement scores in mathematics, but lowest aggregate emotional intelligence mean scores. It also established from this study that students with emotional intelligence have the highest mean score in mathematics. These findings explain the weak relationship between the four domains and aggregate emotional intelligence. This position (weak relationship and of no statistical significance) show that emotional intelligence has almost no contribution to academic achievement in mathematics. This is evident from the regression analysis where it is shown that allthe predictors (self-awareness, self-management, social-awareness and relationship-management) accounted for less than 1% ofthe variance of achievement inmathematics. Students' performance inmathematics was primarily predicted by very low coefficients of self-awareness, self-management, social-awareness and relationship management. The assertion of Meshkat (2011) that emotional intelligence alone accounts for 80% of a person's success seem not applicable in academic success in mathematics.

Literature is however replete with facts that the relationship between emotional intelligence and academic achievement of students could be explained from the point that the way one feels affects the way one thinks. It is worthy of note as well that results of several studies have shown that the correlation coefficient between emotional intelligence and academic achievement of students has always been less than 0.5. This is a pointer to the fact that emotional intelligence is just but one of the several factors that could determine the academic achievement of the students. Thus, while efforts are being made to develop the emotional intelligence of students, we still have to focus attention to other factors affecting the academic achievement of students**.**

6. Conclusion

This study concludes that the four domains of emotional intelligence (self-awareness, self-management, social-awareness, relationship management) combined with the aggregate emotional intelligence do have predictive effect on the academic achievement of students in mathematics. Emotional intelligence with the four predictive variables accounted for less than one percent of the total variance of students' achievement in mathematics. The fact that the effects of emotional intelligence with its predictive variables are not statistically significant is an indication that they might not be responsible for students' low achievement in mathematics. The fact that there exists positive relationship between each of the predictors and aggregate emotional intelligence and mathematics achievement support the fact that there is close connection between emotional intelligence and academic achievement. That is, whatever happens to the affective domain would definitely affect the performance of the cognitive domain.

6. Recommendations

Emotional intelligence is positively related to students' academic achievement and the literature suggests that EI also is positively related to career success. It is therefore recommended that, in finding solutions to the poor academic achievement of students in mathematics, some attentions need to be directed to the development of the affective domain of the students. In addition to the traditional intelligence and standardized tests, others psychological tests should be employed to ascertain students' achievement.

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