

# The Role of Emotional Intelligence and Motivation on the Academic Achievement of Students in Gondar Teachers Training College

**Daniel Gebreslassie Mekonnen**

[A Ph.D. Scholar in the Department of Education, Panjab University, Chandigarh, India]

[email: [danimom21@gmail.com](mailto:danimom21@gmail.com);

**Professor Kuldip Puri**

Professor, in the School of Open Learning, Panjab University, Chandigarh, India

[email: [kuldip.puri@gmail.com](mailto:kuldip.puri@gmail.com);

## Abstract:

The study mainly aimed at assessing the role of Emotional Intelligence (EI) and motivation on the Academic Achievement of Students (AAS) in Gondar Teachers Training College (GTTC). The study, thus, first examined the relationship among EI, motivation and AAS. Second, it investigated whether EI and motivation variables had predicted significantly the AAS. For this purpose, correlational design was employed. The study employed Pearson-product moment analysis, two sample t-tests, and multiple regression tests to analyze the quantitative data. The Pearson product moment analysis first, indicated that any of the EI dimensions and motivation scales (except amotivation scale) did not correlate with the AAS. Second, both sex and amotivation were significantly correlated with AAS. The multiple regression analysis result showed that there was significant contribution of both sex and amotivation to the total variance of academic achievement. Thus, it was concluded that sex and amotivation have great role in predicting the AAS.

**Keyword:** *Academic Achievement, Emotional Intelligence, Motivation.*

*Received on 22 Feb 2020; Revised and Accepted on 15 April 2020 and Published in 21 July 2020*

## Introduction

The world is changing drastically. It demands highly knowledgeable, innovative, skillful and disciplined professionals. Education is the basic and most powerful instrument that helps us to change the world Mandela (as cited in Lodge, 2003). Any country's social, political and economic development can be accelerated through the education level of its people. The more they are educated, the more rapid, sustainable and inclusive development can be achieved. That is why; various efforts have been made in the education system to enhance cognitive, affective and psychomotor domains of individuals (Bloom, Krathwohl, & Masia, 1984). As a result, countries which maintained high quality education have enhanced their citizens' critical thinking and problem solving skills, creativity, and realized sustainable development.

Behavioral change in students is one of the most and underpinning causes of any country's sustainable and inclusive development. As a result, in many countries, AAS is one of the most often used standards to measure students' behavioural changes (Colliver, 2000). Teachers, parents, students and school administrators are highly confined in enhancing and measuring AAS. Various

scholars have been conducting study on factors which impact AAS (Hogan, et al., 2003; McLaughlin, Brozovsky and McLaughlin, 1998). In recent times, psychologists, educationists and social scientists have begun to uncover relationship of AAS with many other phenomena (Aremu, Tella & Tella, 2006) such as EI and motivation (Abisamra, 2000).

Various studies provided a clear and compelling case for the importance of EI to the academic achievement of students at all levels of schooling. In this regard, Nasir and Masrur (2010) deduced that EI plays an important role in creating a healthy classroom environment through developing positive interpersonal relationships between teachers and students and among peers. They also expressed EI facilitates the process of learning through harnessing the energy of positive emotions and controlling the adverse effect of negative emotions.

Low and Nelson (2004) and Abisamara (2000) explain emotionally intelligent people are more likely to succeed in everything they undertake. They also agree EI, as a learned ability, are keys to achievement and it is an essential competence for enhancing college and career success. In line with this idea, Farooq (2003) stated: "a healthy and mature relation along with emotional stability

is a gateway to success in practical and professional life.” This suggestion implies that effective management of emotions is an important aspect of human behavior which leads to success in life.

On the other hand, while there are a number of factors that affect performances of students, academic motivation is also one of the most influential factors (Francis et al., 2004). In fact, as cited in Francis et al., (2004) several researchers such as (Tucker et al., 2002) have suggested that only motivation directly affects academic achievement; all other factors affect achievement only through their effect on motivation. The impact of student motivation in schools on educational outcomes is a major field of study in educational research (Ali and McInerney, 2006). According to Elliot et al., (2003), learning and motivation are equally essential for performance: learning enables us to acquire new knowledge and skills, and motivation provides the impetus for showing what we have learned.

Elliot et al., (2003) stated that learning and motivation are equally essential for performance: learning enables us to acquire new knowledge & skills, and motivation provides the impetus for showing what we have learned. According to them, motivation is an important psychological construct that affects learning & performances in at least four ways. First, motivation increases as an individual's energy and activity level (Pintrich, Marx, and Boyle, 1993). It influences the extent to which an individual is likely to engage in a certain activity intensively or half – heartedly. More specifically, Lavery (1999) indicated that no learning is possible without motivation. This explanation indicates that motivation plays a great role for students' academic achievement and positive changes in the learners' academic achievement is made possible only when he/she is properly motivated. This is mainly because; motivation is the “why” of doing certain activities.

Robinson (2009) also indicated that “motivation is the process of arousing, sustaining and regulating activity.” It energizes and accelerates the behavior of the learner and brings positive changes in the learners' behaviors that are made possible only when a learner is properly motivated. Moreover, students who are motivated behave differently in terms of their learning in the classroom and perform better than students who are less or not motivated (Rotgans, 2009; Pintrich and Schunk, 2002). Finally, the most concluding idea was given by Tella (2007) as: “Motivation raises questions on *why* people behave in the way they do it?” Accordingly, he claimed that successful students are found to have significantly higher motivation for achievement than unsuccessful students.

However, in contrast to this idea, it needs to be mentioned that despite the logic behind this thinking, different studies repeatedly demonstrated that the

correlation coefficient between these constructs are typically quite low or weak. Broussard (2002), a study outcome found by Stipek and Ryan (1997); Neighbour, (1995), and Wolters(1998) found that motivation is a weak predictor of academic achievement and it results in no modest amount of variability in students' academic achievement. They also indicated that motivation was weakly related to students' grades confirming that little or no significant relationship between motivation and academic achievement. Moreover, the findings of Rotgans (2009) suggested that a complex relationship exists between motivation and achievement, but the researcher finally concluded that motivation and achievement are not directly related, rather mediated by learning strategies and achievement related classroom behaviors of students.

On the bases of the aforementioned argumentative ideas, previous studies have suggested that more research is needed in the area. Abisamra(2000) suggested that further study relationship between EI and academic achievement is needed. Similarly, Marsh II and Tapia (2006) in their study concluded that clearly the issue related to academic achievement and EI is complex, and more research in this area is needed. In addition, Low and Nelson, (2009); and Parker and Duffy (2005) suggested that more research is needed to determine its effect on academic achievement. They also strengthened their idea noticing that future research could explore the role of EI on students' academic achievement and the relationship between the two.

Therefore, this study is basically stimulated by the premise that no optimal level of students' academic achievement can be achieved without high level of students' EI and academic motivation. Besides, In spite of the extensive studies conducted about the role of motivation on students' academic achievement, there are few studies conducted on factors which affect AAS in relation with their EI. Thus, the study specifically focuses on the combined effect of EI and motivation on the AAS in the GTTC.

### Research Hypotheses

1. There exists no statistically significant difference in the academic achievements of students with respect to their level of EI;
2. There exists no statistically significant difference in the academic achievements of students with respect to their level of academic motivation;
3. There exists no statistically significant difference in the EI, motivation and AAS with respect to their sex differences.
4. There exists no statistically significant difference in the academic achievements of students with respect to their level of EI and motivation.

## Method

The study aims to examine the role of EI and motivation on the AAS in the Gondar Teachers Training College (GTTC). For this purpose, the study employed a quantitative approach in which correlational design was applied to examine the relationship between EI, motivation and AAS in GTTC.

## Study Area

This study was carried out in GTTC which is found in Gondar Town. It is located about 750 kilometers far away from Addis Ababa, the capital city of Ethiopia. It is found in Gondar Town, Amhara Region. The investigator of this study selected this institution as a study site mainly because the researcher has been living in Gondar Town and currently working as a Lecturer in the College of Education, University of Gondar, Gondar, Ethiopia.

## Population of the Study

The target population of this study consisted of students who are attending their regular diploma program in GTTC in the academic year of 2020. There were about 1822 students (1181 male and 641 female students) who were in different academic years of studies (1st, 2nd and 3rd years).

## Samples and Sampling Techniques

The total sample size of the study was 250 students. Out of which 162 were male and 88 female students. Around

14% of the total populations were selected as a sample in this study. The sample size for the study was determined based on its representativeness. Stratified random sampling technique and simple random sampling technique were applied to make sure that students from all the academic years and gender were appropriately represented. For this main purpose, first, the investigator formed the strata by dividing the whole target population (1822 students) into certain sub-groups. The sub-group was created on the basis of participants' common characteristics such as the batches of the academic year (1st year, 2nd year and 3rd year) and sex (male and female).

The allocation of sample size in each stratum was determined using the Proportion  $K=n/N$  method for each stratum where "N" (total number of students in GTTC, which was 1822), "n" (sample size which was 250) and then, "K" (sampling proportionality, which was 0.13). Then, the accessible samples from each stratum (years of studies and sex) were determined using this proportion (through multiplying the number of sub-groups in each stratum by K). Secondly, after determining the samples to be drawn in each stratum, the next task was selecting sections (which comprised departments in the college) from each batch using a simple random sampling technique employing the lottery method. Using this sampling process, three sections from year three (English, Physical Education, and Geography), two sections from year two (Chemistry and Civics), and three sections from year one (Geography, Physical Education and Mathematics) were randomly selected.

## Data Collection Instruments

### Academic Motivation Scale (AMS)

AMS is a 28-items scale adapted from the self-determination theory (Vallerand et al., 1992). The AMS was sub-divided into seven subscales assessing three types of motivation: intrinsic motivation, extrinsic motivation, and amotivation. This scale contains 28-items assessed on a 7-points scale that range from "Doesn't correspond at all" (1) to "Corresponds exactly" (7), and each of the items corresponds to one of the reasons "Why do you go to college?" (Vallerand et al., 1992). Based on the self-determination theory, a revised version of the Academic Motivation Scale (AMS; Vallerand, et al., 1992) that measures extrinsic, intrinsic, and a motivation) and the seven (7) scales is the most frequently used instrument to assess the academic motivation of college students (Vallerand et al., 1992).

Thus, for the purpose of this study, the 28 items in the AMS were adapted from the source because modification of these items was needed to the contexts of the students and the college. The following were the modifications made while adapting this instrument; (1) minor wording changes were made to the 28 item questionnaire; (2) the scales were changed to a 5 point likert type scale with responses ranged from "Strongly Disagree" (1) to "Strongly Agree" (5), and (3) an other modification was that the AMS scale (original) requires participants to respond to what extent each of the 28 items presently corresponds to one of the reasons "Why you go to college?", but for this particular study, these items require participants to respond to what extent they agree or disagree to each of the 28 items to one of the reasons "Why do you study in the college?"

In this study, the Academic Motivation Scales was administered to assess the academic motivation of 250 students in GTTC along the three (3) motivation scales and/or types: *extrinsic*, *intrinsic*, and *amotivation*. Each scale includes different items that require students to

answer “*why they study their subjects (courses) in college*”. All items in each scale may not have similar semantic contents. The following table shows the summary of the total number of items in the MQ, number

The Emotional Intelligence Questionnaire (EIQ) is a 50 item rating scale adapted from (Bar-On, 2002). The EIQ is a standardized self-report Inventory assessed on a seven (7) point likert scale response format. These items were adapted and administered to assess students’ EI skills. Items in the questionnaire were divided into five categories Intrapersonal, Interpersonal, Adaptability, General Mood and Stress Management scales of items in each scale and the characteristic items used in the study.

**Document Analysis (DA):** document analysis was used to collect data on the AAS. In GTTC, students’ results were assigned in the form of grade A, B, C, D, and F in their courses. Thus, for the purpose of this study, students’ GPA during the first semester, collected from the college office of registrar, was used to measure the AAS.

#### Data Collection and Analysis Procedure

The instruments were administered individually to the college students which they were told to return the completed instruments within a week. Students were allowed to take the instruments with them and fill-in at appropriate times to them. It was helped that allowing students to fill-in the questionnaire would increase the reliability of their responses significantly.

The following preliminary activities were entailed before the main data analysis. First, the responses of students were thoroughly checked and from the total 250 questionnaires distributed, two were unreturned (with unknown reasons) and 248 of the questionnaire were returned. From these returned questionnaire, 8 were ignored because they were with erroneous response sets, inappropriate answers, carelessly given responses and unfilled questionnaire items and later the other two questionnaires were diminished because students were denied to give appropriate background information liked ID number, sex and years of study. In total, 12 questionnaires were discarded from both EIQ. Thus, this study made use of only 238 questionnaires. Then, the coding process took place. The analysis task of the study was performed using Statistical Package for Social Sciences Version (SPSS V.15.0).

point likert –type scale which range from Strongly Disagree (1) Strongly Agree (5).

Thus, for use in this study, while adapting the instrument, one item was unintentionally left and the current study utilized only 50 of them. These items were administered to assess students’ EI skills along the following five (5) dimensions/ EI scales/, namely: Intrapersonal, Interpersonal, Adaptability, General Mood and Stress Management scales.

The following were considerable modifications made while adapting this instrument: (1) minor wording and statement changes were made to the 51 items of BarOn EQ:I-S(original), (2) the response format become a 5 point likert –type scale which range from Strongly Disagree (1) to Strongly Agree (5). The table below shows the summary of the number of questions in each scale of EI and the characteristic of items used in the study.

Once the coding process was completed, the negatively and positively worded items were identified for the scoring purpose. The scoring process was completed through preparing data code sheet. The positively worded items in the EIQ were scored as students provided answer for the items in the scales: (1-5) in the scales (1=strongly disagree, 2=Disagree, 3=moderately agree, 4=agree and 5=strongly agree), but for the negatively phrased items in these questionnaires, *reverse scoring* was conducted i.e., items were scored as 1=5, 2= 4, 3= 3 or inversely, 5 = 1, 4= 2, and 3 = 3 in the scales. Then, the actual data analysis process took place using the above methods. Finally, the actual data analysis process took place. From the total of EIQ items, item numbers 3,7, 15,16,22,27,29,32,33 , 44,47,48 and 49 are negatively worded items, but the rest were positively worded items in both MQ and EIQ.

Finally, to examine whether there exists a significant relationship between EI, motivation and academic achievement; Pearson product moment correlation was performed. To examine mean score differences between male and female students on EI, motivation and academic achievement dimensions, a two-sample t-test was conducted; To find out whether EI and motivation variables can predict students’ academic achievement or not, multiple regression was employed. Eventually, to determine the effects of EI and Motivation on students’ academic achievement, beta coefficients were used.

#### Results of the study

##### Analysis of the Pearson Product Moment Correlation

The first purpose of this study was to examine whether there exists a significant relationship between EI, motivation and academic achievement, as measured by GPA.

N=238 {Codes were 1= Male, 0 = Female} Significant at \* $p < 0.05$

As indicated in Table 4 the correlation coefficient results demonstrated that there was statistically significant positive correlation between sex and academic achievement ( $r = 0.34$ ,  $P < 0.05$ ). Similarly a statistically significant relationship was observed between Amotivation and Academic Achievement as measured by GPA ( $r = 0.22$ ,  $P < 0.05$ ).

There was statistically significant positive relationship between general mood and interpersonal relationship ( $r = 0.37$ ,  $p > 0.05$ ), general mood and adaptability ( $r = 0.50$ ,  $P < 0.05$ ), general mood and stress management ( $r = 0.51$ ,  $p < 0.05$ ), general mood and intrinsic motivation ( $r = 0.34$ ,  $p < 0.05$ ) and general mood and extrinsic

motivation ( $r = 0.24$ ,  $P < 0.05$ ). Likewise, there was statistically significant relationship between interpersonal relationship and adaptability ( $r = 0.38$ ,  $P < 0.05$ ), interpersonal relationship and stress management ( $r = 0.42$ ,  $P < 0.05$ ), interpersonal relationship and amotivation ( $r = 0.16$ ,  $P > 0.05$ ), and also adaptability and stress management ( $r = 0.40$ ,  $P < 0.05$ ). Similarly, there was a statistically significant correlation between adaptability and intrinsic motivation ( $r = 0.35$ ,  $P < 0.05$ ), adaptability and extrinsic motivation ( $r = 0.19$ ,  $P < 0.05$ ) and there was a statistically significant correlation between intrinsic motivation and extrinsic motivation ( $r = 0.49$ ,  $P < 0.05$ ).

However, this analysis indicated that there is no statistically significant relationship between academic achievement, as measured by GPA and any of the EI dimensions (general mood, interpersonal, intrapersonal, adaptability and stress management), which was ( $r = 0.07$ ,  $0.02$ ,  $0.08$ ,  $0.04$  and  $0.04$  respectively at  $p < 0.05$ ). In the same way, there was no statistically significant relationship between academic achievement and motivation related to intrinsic and extrinsic scales which was ( $r = 0.04$ ,  $p < 0.05$  and  $r = 0.04$ ,  $p < 0.05$ ) respectively.

### Analysis of the two- sample t-test

The second purpose of this study was to examine mean score difference between male and female students on EI, motivation and academic achievement dimensions. To do this, two samples t-test was conducted and the results presented in Table 5.

The results of two samples t- test indicated that female students scored higher mean score than male counterparts in adaptability. This result shows that females are more able to adapt to different conditions in life situations than male students. On the other hand, male students scored higher mean scores than female students in Extrinsic, Amotivation and Academic achievement variables. The results show that males use extrinsic motivation in academic settings to achieve more than females. Similarly, males are more amotivated than females in academic tasks and learning in the college.

This may imply that male students have a feeling that they are wasting their time in schools doing academic activities. On the other hand, although males are extrinsically motivated and amotivated related to academic activities, surprisingly they exhibited higher academic achievement as measured by GPA than female students in this sample group.

### Analysis of the Multiple Regressions

The major purpose of this study was to investigate whether EI and motivation variables predict significantly students' academic achievement as measured by GPA.

The regression analysis results indicated that there was significant contribution of sex and amotivation to academic achievement ( $R^2 = 0.163$ ,  $F = 4.418$ ,  $P < 0.001$ ). But general mood, intrapersonal, stress management and extrinsic motivation contribution was found to be negative. That is the more students' exhibit general mood, intrapersonal relation, stress management and extrinsic motivation the lower was their academic achievement. Furthermore, the direct effects of the variable on academic achievement were determined using beta coefficients. The effects on academic achievement of sex ( $\beta = .319$ ,  $t = 5.026$ ,  $p = 0.05$ ) and amotivation ( $\beta = .184$ ,  $t = 2.802$ ,  $p < 0.05$ ) were statistically significant. The effects of interpersonal, adaptability and intrinsic motivation were not statistically significant ( $P > 0.05$ ).



The independent contribution of sex to the total variance of academic achievement was found to be 10.78% which is 66.15% of the total  $R^2$ , which was 0.163. This means the composite contribution of sex, interpersonal relationships, adaptability intrinsic motivation and amotivation to the variance of academic achievement was 16.3% and the contribution of sex was 66.15% and the contribution of amotivation to the total

### Discussion

In this section, the findings of the study were thoroughly discussed in line with findings of other scholars.

### The Relationship between EI, Motivation and Academic Achievement Variables

The results of the Pearson Correlation analysis indicated that there is a significant positive correlation between amotivation and academic achievement as measured by GPA ( $r = 0.22$ ,  $P < 0.05$ ). This really may not happen in real educational and practical contexts, but students in the college got higher scores of amotivation which indicates that they were not motivated to study their courses/subjects. They were unwilling to study their courses/subjects. However, it may not really be appealing that the more students are amotivated, the more they get good GPAs. From this report it can be understood that in the college, though students were unwilling to learn /study/ their courses, they had no option to stay away from the college and as such it was statistically positively correlated to their academic achievement, and their amotivation become a good reason to study their courses/subjects/.

This analysis did not show statistically significant correlations between other motivation dimensions (intrinsic and extrinsic) and academic achievement. This finding was supported by some study reports that motivation and academic achievement are either weakly correlated or totally unrelated. For example, as cited in Rotgans (2009), studies by Wolters and Pintrich (1998) found out that there is low correlation between motivation and achievement ( $r = .19$ ,  $p < 0.05$ ). Rotgans (2009) reported that motivation and achievement are not directly related, but mediated by learning strategies and achievement related classroom behaviors confirming that there is a complex relationship between motivation and academic achievement. Still other researchers noted that there might be little or no significant relationship between motivation and academic achievement. For example, as cited in Broussard (2002) findings of study by Niehbour (1995) and Stipek and Ryan (1997) indicated that student motivation showed no significant relationship with academic achievement.

Contrary to the present finding, a study conducted by Ayub (2010) indicated that intrinsic and extrinsic motivation and academic performance were positively

variance of academic achievement was found to be 4.45%, which was 27.30% of the total  $R^2$ . This means that the composite contribution of sex and amotivation was 15.23 of the total  $R^2$  which was 16.3% and it was 93.44%. The rest 1.07 contribution of the total  $R^2$  was contributed by interpersonal, adaptability and intrinsic motivation which was 6.56% of the total  $R^2$ .

correlated ( $r = 0.563$ ,  $P < 0.000$ ). Similarly, a study conducted by Lepper, Iyengar and Corpus (2005) indicated that there was a significant positive correlation between overall GPA and intrinsic motivation ( $r = 0.34$ ,  $P < 0.001$ ), and the correlation between extrinsic motivation and overall GPA was significant, but negative ( $r = 0.23$ ,  $P < 0.01$ ). In addition, other studies by Ogundokun and Adeyemo (2010) found that significant correlations were obtained between academic achievement and the motivation types: Intrinsic motivation ( $r = 0.666$ ,  $P < 0.05$ ), Extrinsic motivation ( $r = 0.581$ ,  $P < 0.05$ ).

The results of the current study demonstrated no statistically significant correlation between either of the EI dimensions (general mood, interpersonal, intrapersonal, adaptability and stress management skills) and students' academic achievement of the whole sample. There were previous studies which were consistent with this finding. For example, as cited in Mulugeta (2010) a research study conducted by Mewsome, Day and Catano (2000) which reported that EI has no association to academic achievement. They also delineated their concern that EI and academic achievement are unrelated variables and no significant correlation was found between them. Again, as cited in Brackett et al., (2006) the following researchers found no correlation between EI and academic achievement in college students (Parkers, Creque, Barnhart, Harris, Irons, Majeski, Wood, Bond, and Hogan, 2004; Barchard, 2003; Brackett and Mayer, 2003; Lam and Kirby, 2002). These studies also indicated that the relationship between EI and academic grades drops to non-significant. In addition, Marsh II (2006); Brackett and Salovey (2008) found no correlation between EI and academic achievement, using grade point average (GPA). Moreover, as cited in Sintayehu (2009) studies by Kolfman (1998) reported that the relationship between EI and GPA was little, but not significant. These researchers reported that there are zero-order correlations between the EI and grades among college students.

Inconsistent to the current study were studies conducted by, as cited in Marsh II and Tapia (2006), Parker, Creque, Barnhart, Harris, Majeski, Wood, Bond and Hogan (2004), Schutte, et al., (1998) which found that academic achievement is strongly related to EI. Completely contrary to the current study, recently, a study conducted by Ogundokun and Adeyemo (2010) showed

that academic achievement is strongly positively correlated with EI ( $r = 0.736$ ,  $P < 0.05$ ). In addition, the study by Nasir and Masrur (2010) showed a significant correlation between EI and academic achievement ( $r = 0.34$ ,  $P < 0.01$ ). Further, Aremu, Tella and Tella (2006) in their study reported that there was statistically significant positive relationship between EI and academic achievement ( $r = 0.3108$ ,  $P < 0.001$ ). Still, Sunbul and Aslan (2007) founded that there is a significant relationship between the three(3) dimensions of EI and academic achievement on all samples, these were interpersonal abilities ( $r = 0.217$ ,  $P < 0.01$ ), adaptability, ( $r = 0.184$ ,  $P < 0.01$ ), and general mood ( $r = 0.19$ ,  $P < 0.01$ ).

Additionally, in the current study, the Pearson product moment correlation analysis reported that there was significant positive correlation between sex and academic achievement ( $r = 0.34$ ,  $P < 0.05$ ), but the analysis did not show significant correlation between sex and any of the motivation or EI components. In contrast to this, Mandell and Pherwani (2003) found significant correlation between EI and gender ( $r = 0.19$ ).

As the study report indicates, in GCTE, students' EI and their motivation to study did not relate to their GPA. The current investigator understands two ball points here: On one hand, students might lack the quality of motivation to study hard in college so as to achieve good marks in their respective courses. In the real college situation, one can be informed that they may lack this quality, for example, if someone asked one student like this: "Do you like studying? Or "Do you like the teaching profession?", no doubt and even not surprising to get the answer like "No!!!... I do not like studying" or "No!!!...I do not like the teaching profession." Rather they are staying in the college because they have no other options to stay away from their parents. This context, however, is believed to increase students' motivation (extrinsic). The explanation above also imply that when students were amotivated, it does not mean that they lack either of intrinsic or extrinsic motivation in the college, but according to the results of this study, students in the college lack these qualities to study their courses/subjects confirming that they were amotivated to do so!.

There was also one competing evidence in this analysis that amotivation and academic achievement were significantly correlated indicating that students in the college are not motivated to study or they are unwilling to study their courses/subjects/, but as indicated above, this does not mean that as amotivational scores increases, students' academic achievement will increase. It may not really happen in life, or else it may require another investigation to ascertain this phenomenon.

On the other hand, the investigator understood that students in GCTE either lack EI skills or they are not able to use what EI skills they have for many purposes (such as interacting with their teachers and others to get help, regulating self to study, effective communication and the

like) in the college. This also implies that so much should be done to help students promote this quality which is important not only for this academic purpose, but also for their extended real live situations, of course.

### Sex Difference in the Mean scores of EI, Motivation and Academic Achievement

The results of the two samples t-test indicated that there is a significant sex difference in EI, motivation and academic achievement dimensions. As the study revealed, female students relatively scored higher mean scores than their male counterparts in adaptability, general mood, interpersonal skills, and intrinsic Motivation. This difference is suggestive in that female students were relatively better in EI related to these dimensions and motivation dimension related to intrinsic motivation, but the difference was slight- not statistically significant ( $P > 0.05$ ). On the other hand, male students scored higher mean scores than female students in extrinsic, amotivation and academic achievement variables. But the difference between male and female scores in intrapersonal and stress management skills was not statistically significant. From the result shown, it is possible to understand that certainly it is surprising those male students, though they are amotivated and that they have lower extrinsic motivation than female students; they still are higher achievers in the college than their counterparts. As indicated in the background part of this study, compared to male students, female students are more prone to dismissal, dropouts and withdrawal mostly because of their academic failure in college.

As regard to sex difference in EI dimensions, similar to the findings of the current study, katyal and Awasthi (2005) reported that girls were found to have higher EI than that of boys, however, the difference touched only 0.10 level so that their finding was not conclusive rather suggestive of the trend. Contrary to their finding, the results of the current study might be conclusive in that the differences in EI scales mean scores of boys and girls in the college was that in adaptability scale (at which the difference was statistically significant) girls scored 1.18 points higher mean scores ( $M = 43.61$ ,  $SD = 4.32$ ) than their male counterparts ( $M = 42.42$ ,  $SD = 4.85$ ). Moreover, in general mood scales female students scored 0.85 points higher mean scores ( $M = 35.77$ ,  $SD = 5.05$ ) than their male counterparts ( $M = 34.92$ ,  $SD = 4.80$ ), in interpersonal skills females scored 0.35 points higher mean scores ( $M = 33.20$ ,  $SD = 4.17$ ) than male students ( $M = 32.85$ ,  $SD = 4.15$ ). Still, there was a slight difference where it was not statistically significant.

As indicated above, the two sample t-test analysis showed that female students were with higher interpersonal skills than male students. In contrast to this

finding, study conducted by Sunbul and Aslan(2007)the analysis using independent t-test showed that there were significant difference on gender in interpersonal skills dimension of EQ inventory ( $P<0.05$ ), where males average score ( $M=112.31$ ,  $SD= 14.52$ ) that approximately 4.76 greater than females ( $M= 107.55$ ,  $SD= 14.08$ ).Further, still contrary to this finding, Mandell and Pherwani (2003) revealed that in interpersonal skills, males attained high scores ( $M= 42.3636$ ,  $SD= 4.012793$ ) than females ( $M=40.6694$ ,  $SD= 5.32783$ ). According to Goleman(1998) as cited in Sunbul and Aslan(2007), individuals having high interpersonal skills are the people who can demonstrate empathic attitudes and interact with others in an effective manner. Likewise, the current study implies that girls have higher interpersonal abilities than boys, which imply the importance of their empathic attitudes and interaction with others.

This study also indicates a significant gender difference on EI related to the adaptability skill where females students having adaptability skill ( $M=43.61$ ,  $SD=4.32$ ) about 1.19 points higher than males ( $M=42.42$ ,  $SD=4.85$ ). According to Mandell and pherwani (2003), individuals with higher adaptability skills are flexible, realistic, and successful in managing change, and they are adept at finding effective ways of dealing with everyday problems. According to this finding, the college female students have these abilities so far.

Finally, the result in the current study also indicated that female students were good at general mood areas. This implies that females in the college have higher general mood skill than male students. According to Mandell and Pherwani (2003) individuals who have high competencies in general mood, are generally optimistic, energetic, and self- motivated, have positive outlook and are typically pleasant to be with. Thus, this result reported as to what these students developed these characteristics and they also have higher interpersonal skills than male students. This also implies that females in the college are co-operative, constructive, and are able to establish satisfying interpersonal relationships with others.

The current study reported that female students were relatively better in interpersonal, general mood, and adaptability skills, and hence it can be concluded that the study showed significant gender differences in EI (except in intrapersonal and stress management skills, which the difference was not statistically significant). Regarding this, some studies (Schuttle et al., 1998) found that females rate higher than males on measures of EI. In addition, Petrides and Furnham (2000) also reported that females seem to be more socially skilled than males on EI. As can be seen from the trend above, there was significant level of differences in the three (3) EI dimensions between female and male trainees in the

college where compared to males, female trainees have had higher scores in the dimensions of EI related to the *interpersonal skills*, *general mood*, and *adaptability*. As regard to sex differences in motivation dimensions, the result of the current study also indicated that there was a statistically significant sex differences in AMS; where male students had higher mean score in amotivation and extrinsic subscales than female counter parts. However, female students on their part scored higher points than male students in intrinsic motivation scale, but it was not statistically significant.

From the analysis, the two-sample t-test indicated that male students had a mean score ( $M=18.53$ ,  $SD= 2.28$ ) that was approximately 0.93 points higher than female students ( $M=17.60$ ,  $SD= 3.54$ ) in *amotivation* sub scale. The analysis also indicated that male students had an average score ( $M=33.99$ ,  $SD= 4.35$ ) that was approximately 0.94 points higher than female students ( $M=32.95$ ,  $SD= 4.66$ ) in *Extrinsic* sub-scale. Consistently to this result was in Brouse et al; (2010) study that reported males had greater average score ( $M=7.60$ ,  $SD= 5.22$ ) which was approximately 1 point higher than females ( $M=6.60$ ,  $SD= 4.29$ ) in extrinsic motivation scale. On the other hand, the current study also revealed that contrary to male students, female counterparts had higher mean score in intrinsic motivation subscale, that is they had an average score ( $M=63.73$ ,  $SD= 6.42$ ) that was approximately 0.90 points higher than male students ( $M=62.83$ ,  $SD=7.72$ ) in intrinsic motivation subscale. Consistent with this finding was a research study reported by Brouse et al., (2010) , where females scored higher than males on intrinsic motivation measure in that they had an average score ( $M= 54.69$ ,  $SD= 13.73$ ) that was approximately 4 points higher than males ( $M= 50.91$ ,  $SD= 14.54$ ). Thus, in both motivation types (amotivation and extrinsic motivation), higher level motivation is observed in male students. Though they are amotivated, they are still performing well in their academic achievement. This in turn connotes that females may require tailored efforts to reduce this disparity in academic motivation to perform well as their counterparts. Teachers, counseling and educational psychologists should encourage the development of a strong achievement motivation in these students through the provision of appropriate counseling intervention programs and enabling environment (Ogundokun and Adedyemo, 2010). On the other hand, research to improve understanding about factors influencing academic motivation among female and male students is needed in efforts to promote optimal growth and development during the college experience (Brouse et al. 2010).

However, in intrinsic motivation scale females reported higher levels of motivation than male counterparts. However, in similar fashion, male's intrinsic



motivation should be promoted through devising different strategies. "It may be quite adaptive for students to seek out activities that they find inherently pleasurable, while simultaneously paying attention to the extrinsic consequences of those activities in any specific context" (Ogundokun and Adeyemo, 2010:136). They also recommend that seeking only immediate enjoyment with no attention to external contingencies and constraints may substantially reduce students' future outcomes and opportunities.

In sum, the current study indicated that there is statistically significant sex difference in motivation variables between male and female students in the college. In this respect, the current study results were similar with research results of researchers such as Vallerand, Pelletier, Blais, Briere, Senecal, and Vallieres (1992), and Vallerand and Bissonnette (1992) concerning gender differences. However, it should be noted that the differences observed were not large and nevertheless, the results were consistent with those reported by others and have implications for future research and practices.

Moreover, the two - sample t-test analysis showed statistically significant sex differences in academic achievement, which the mean score for male students was ( $M=3.08$ ,  $SD=0.49$ ) that was approximately 0.34 points higher than the female counter parts ( $M= 2.74$ ,  $SD=0.45$ ). In contrast to this, in other studies, for example, Naderi et al, (2009), no significant difference between GPA and gender was observed. In addition, Farook (2003) found that the comparison of both genders on academic performance revealed no significant differences. By and large, in the current study, the two sample t- test showed statistically significant sex difference in motivation, EI and academic achievement variables that is: (1) the study showed the existence of gender differences in these variables with boys showing higher levels of amotivation and extrinsic motivation than female students.

Conversely, female students showed higher levels of intrinsic motivation than male counterparts; (2) female students were relatively showing higher level of EI skills related to general mood, interpersonal and adaptability skills than male students. This result was consistent with the findings of Nirmala (2010), and Sunbul and Aslan(2007) in that the mean scores on all components of EI indicated a lead in the females over the males confirming that there were significant differences in EI of girls and boys.

However, contradicted finding was reported by Nasir and Masrur (2010) showing that there was no difference in the mean EI scores of male and female students except on stress management scale, where male students scored higher ( $M=62.14$ ,  $SD= 6.430$ ,  $P< 0.05$ ) than female students ( $M=58.67$ ,  $SD= 12.22$   $t= p< 0.05$ ). In addition, using Bar-On's Emotional Quotient Inventory Short form for college students, Mandell and Pherwani (2003) found

a significant gender difference in the five EI variables (interpersonal, intrapersonal, adaptability, stress management, and general mood), but in overall EI, males scored higher in all areas of EQ ( $M=36.7591$ ,  $SD= 3.8139$ ) than females ( $M= 34.9244$ ,  $SD= 4.17641$ ) which was approximately 1.8347 points higher than female counter parts; (3) there was also a very slight difference in intrapersonal and stress management dimensions, where female students showed very slightly higher level ( $M=31.91$ ,  $SD= 4.07$ ) that was approximately 0.03 points higher than male counterparts ( $M=31.87$ ,  $SD= 3.98$ ) in intrapersonal skills. In contrast to this, Mandell and Pherwani (2003) reported that in intrapersonal skill, males scored an average ( $M=40.4545$ ,  $SD= 5.37200$ ) which is approximately 0.586 points higher than females ( $M= 39.8683$ ,  $SD= 6.62468$ ).

Moreover, male students showed a very slightly higher level ( $M=40.81$ ,  $SD= 5.21$ ) that was approximately 0.23 points greater than female counterparts ( $M=40.58$ ,  $SD= 6.210$ ) in stress management skills, which was not statistically significant. Almost similarly, Mandell and Pherwani (2003) found that in stress management skills males gained higher scores ( $M=32. 4091$ ,  $SD = 5.7483$ ) than females ( $M= 30.4455$ ,  $SD= 5. 53$

However, this in some ways implies that coping with stress helps students in many academic instances, for example, as Stein and Book (2003) stated, coping with the stress area of the EI is related to introversion, spread, losing control, reacting to stress without a deep up set.

They also added that people successful in this area are generally regarded as calm, rarely getting angry and easily coping with constraint situations. In harmony with this idea, the current finding revealed that in GCTE, in contrast to female students, all sampled male students have been more in coping with stressful activities in terms of their emotions.

### **EI and Motivation as predictors of Academic Achievement**

The multiple regression analysis results indicated that there was a significant contribution of sex and amotivation to academic achievement ( $R^2 = 0.163$ ,  $F= 4.418$ ,  $p< 0.001$ ). Nevertheless, in the current study, this analysis reported that the contribution of either EI dimensions or motivation scales (except amotivation) for college students' academic achievement, as measured by GPA was not statistically significant. In the study, only sex and amotivation were found important contributors of AAS.

According to the current finding, the contribution of other EI scales such as general mood, intrapersonal and stress management were found to be negative, that is, these dimensions did not contribute to the AAS and , as a result, as students get more on these dimensions, their academic achievement was lower and lower. Other EI

dimensions such as adaptability and interpersonal skills were found to have no statistically significant contribution to students' academic achievement.

This study did not signify the important contribution of EI in AAS in the college. Thus, it was found inconsistent with many existing research literatures such as (Nasir and Masrur, 2010; Nelson and Low, 2004; Parker, Summerfield, Hogan and Majeski, 2004; Marquez, Martin and Brackett, 2006; Holt, 2008). Another study conducted by Chafin (2006) indicated that pretest overall EI scores and scale scores (interpersonal, adaptability, and stress management) would significantly predict students' academic achievement. By contrast to the current study, other extensive research findings indicated that EI skills are an important and perhaps critical factor of students' academic achievements (Nelson and Low, 2005, 2004; Parker, 2005; Smith 2004; Vela, 2003). Moreover, among other factors listed, these extensive studies indicated that EI is a determinant factor for academic achievement of students and it's an essential component for enhancing academic, college and career success (Low and Nelson, 2007). Moreover, other recent studies by Ogundokun and Adeyemo (2010) found that EI alone turned out to be the strongest predictor of academic achievement accounting for 54.2% of the variance ( $R^2 = 0.542$ ,  $F = 1850.38$ ,  $p < 0.05$ ). Additionally, Parker, Summerfeldt, Hogan, and Majesky(2003) reported that EI significantly predicts academic success in successful and unsuccessful students. Moreover, Nasir and Masrur(2010) in their study reported that EI was found to be a significant predictor of academic achievement. The results of the regression analysis in their study indicated that EI significantly predicted academic achievement ( $F = 17.14$ ,  $P < 0.01$ ) and it accounted for almost 12% variance in academic achievement as measured by CGPA ( $R^2 = 0.12$ ). Moreover, the multiple regression analysis of the current study found no statistically significant contribution of motivation scales (except amotivation) to the academic achievement of the students in the college. According to this finding, the contribution of intrinsic motivation to academic achievement was statistically not significant, and extrinsic motivation had a negative contribution to students' academic achievement, that is, as students' level of extrinsic motivation was higher, there was a lower level of their academic achievement. In line with this as cited in

Broussard (2002) a study by Goldberg and Cornell (1998) revealed that intrinsic motivation did not directly influence subsequent students' academic achievement. But Contrary to this finding, a study results reported by Ayub(2010) indicated that his findings supported the significance of motivation to AAS. He also underlined that: "motivation types such as intrinsic and extrinsic motivations affect students' performance." (p.368). Other studies by Ogundokun and Adeyemo (2010) also found that both extrinsic and intrinsic motivations were found to

be significant contributors to the academic performances of students.

### **Roles of EI and Motivation on the Academic Achievement of Students**

Furthermore, in this study the beta coefficients analysis was conducted to see the direct effects of study variables on students' academic achievement. In the current study, the beta coefficient analysis showed that the contribution of EI variables and motivation subscales such as interpersonal, adaptability and intrinsic motivation was little (, i.e., the composite contributions of these variables was only 6.56% to the total  $R^2$  which was 16.3%, which the contribution was not that much statistically significant ( $P > 0.05$ ) in that these variables could have to contribute a lot to the students' academic achievement. Nevertheless, the other EI and motivation variables such as general mood, intrapersonal, stress management and extrinsic motivation have negative contributions to students' academic achievement. Similar to this finding, studies conducted, for example, by Petrides, Fedirickson, and Furnham (2004) as cited in Marsh II and Tapia (2006) reported that EI has been found to have little influence on students' academic achievement.

Most importantly, this current study showed that sex could predict students' academic achievement and it had a significant contribution to students' academic achievement in the college so that the present study supports the gender as a significant predictor of academic achievement. The independent contribution of sex to the total variance of academic achievement was found to be 10.78% which is 66.15% of the total  $R^2$ , which was 0.163. Inconsistently to this, a research result reported by Naderi, Abdullah, Hamid and Sharir (2008) did not explain this, that is, in their finding; sex was not a significant predictor of academic achievement. According to them, sex explained 0.138 of the variance in academic achievement, which is not significant. Moreover, in their result, the correlation between gender and academic achievement was (zero-order  $= 0.095$ ,  $P = 0.05$ ), which is not significant, and this still contradicts with the current study.

This was contrary to the research result reported by Aremu, Tella and Tella (2010) in that about 27.5% of the total contribution was made by EI(it was seen that the calculated critical F value  $= 314.53$ ,  $P < 0.05$  when the EI variable was good predictor of academic achievement of the participants. Again this was contrary to the study reports of researchers such as Aremu, Tella and Tella(2006) where they found that aggregate EI had a greater effect ( $\beta = 0.228$ ,  $t = 2.31$ ;  $P < 0.05$ ) on students' academic achievement.

As the results of beta coefficient analysis indicated, the direct effects of sex and amotivation were found to be statistically significant ( $\beta=0.319$ ,  $t=5.026$ ;  $P<0.05$  and  $\beta=0.184$ ,  $t=2.802$ ;  $P<0.050$ ) respectively. The independent contribution of sex to the total variance of academic achievement was found to be 10.78%, which is 66.15% of the total  $R^2$ , which was 0.163 or 16.3%. Again, the independent contribution of amotivation to the total variance of academic achievement was found to be 4.45%, which was 27.30% of the total  $R^2$ . This can also tell that the composite contribution of both sex and amotivation were about 15.23 of the total variance, which was about 93.44%, and the rest 6.65% of the total  $R^2$  was contributed by other EI and motivation variables such as interpersonal, adaptability and intrinsic motivation. Thus, the findings of this study indicated that both sex and amotivation have a statistically significant direct effect on students' academic, but in relation to other variables, sex was one that has highest contribution to academic achievement (about 66.15% of the total variance was contributed by it) and it significantly contributes higher than other variables in the study.

However in this particular study, the effects of interpersonal, adaptability, intrinsic motivation was not statistically significant ( $P>0.05$ ) which these variables contribute about 6.56 % of the total  $R^2$ , which was 16.3%. On the other hand, extrinsic motivation, Stress Management, Intrapersonal skills and General Mood were found to have a negative effect on AAS, that is, as students exhibit more on these dimensions, the lower was their academic achievement. However, the findings of these study completely disagree with the findings of Ogundokun and Adeyemo (2010) that EI alone turned out to be a strongest predictor of academic achievement accounting for 54.2% of the variance  $R^2 = 0.542$ ,  $F=1850.38$ ,  $P<0.05$ ). Their result also demonstrated that the moderate variables (Extrinsic motivation, and Intrinsic motivation) significantly predicted academic achievement in the order of magnitude of ( $\beta = 0.152$ ,  $P<0.05$  and  $\beta=0.120$ ,  $P<0.05$ ) respectively.

## Conclusions

Based on the above findings, the following conclusions and recommendations were forwarded.

- ❖ Based on the findings indicated, one can conclude that sex and amotivation have strong effects on students' academic achievement and these variables are the superior predictors of AAS in GTTC.
- ❖ The current study reported that there was a significant sex difference in EI, motivation and academic achievement variables between male

and female students. This finding helps one to generalize that both male and female students in the college are not similar in their EI competencies, motivation and academic achievement areas. In relation to this, female students' have relatively higher levels of competency in their EI areas and intrinsic motivation than male counterparts in the college. Particularly, they are effective in EI related to adaptability skills.

- ❖ In the study, it was clearly viewed that male students are amotivated and more extrinsically motivated than female counterparts, but their academic achievement was superior to female students in the college. Mostly, unless in some rare cases, male students outperform and exceed their female counterparts in their academic achievement.
- ❖ The results of the study demonstrated that there were no statistically significant correlation between motivation (intrinsic and extrinsic scales) and academic achievement on one hand, and in the other hand, no statistically significant correlation between either of the EI dimensions (general mood, interpersonal, intrapersonal, adaptability and stress management) and academic achievement. Thus, it is plausible to conclude that both EI and motivation (except amotivation variable) have no strong correlation with AAS in college.
- ❖ As reported in the findings of the study, EI and motivation (except amotivation) variables did not have a significant effect on the AAS in college. This helps to conclude that both EI and motivation (except amotivation) are not applied to promote AAS in college.

The above points (4) and (5) remind one to generalize that students in this college lack EI skills in the college, but in comparison, females are relatively better in their EI competencies related to adaptability, general mood and interpersonal skills. Similarly, in college, students have no motivation to study their courses /subjects to achieve good marks in their respective fields of areas. They are amotivated to study their courses (subjects) in college.

The implication of these findings is that there is a need for promoting students' EI skills and motivation through EI training and designing different motivational intervention strategies so that students will be more equipped to deal with academic achievement challenges.

## Recommendations

- ❖ The College students had lack of EI skills and academic motivation qualities to study their

courses. Thus, the college instructors should enrich their students' academic motivation through designing special instructional programs and other related motivational speeches and activities. In addition, efforts should be geared toward the development of EI skills to wards students in the college environment through designing various EI trainings.

- ❖ Female students had low academic achievers in the college. Thus, college instructors and authorities should take considerable measures toward promoting the academic achievement of these students by incorporating EI and academic motivation interventions strategies in the College.
- ❖ Researchers should continue investigating the emotional competences and academic motivation of the college students. Various trainings and academic interventions are required to enhance the emotional competences and academic motivation of the College students.
- ❖ The college counselors should give trainings, counseling and advising services for students to promote primarily their EI skills and motivation then their academic achievement;
- ❖ Curriculum designers, policy makers and instructional experts should be awarded about the importance of EI and motivation in the college spheres so that the integration of EI and motivation issues to the mainstream curricula will be possible.

In addition, based on the findings from the current study, literatures reviewed and the aforementioned discussion, the investigator has forwarded the following avenues for future researches:

- ❖ This study was conducted in GCTE at Gondar Town. However, the extent to which the results found can be applied to other colleges, universities, high schools, elementary and junior schools is not known. Therefore, conducting similar studies in these different institutions is needed to arrive at final and general conclusions;
- ❖ The current study is open for replication. It can be replicated again using the same research design and sample size and others may extend it through increasing the sample size and using somewhat different research design;
- ❖ Another research study can be conducted on assessing the EI and motivation level of students in GCTE. This type of study can also be extended in other non-colleges.
- ❖ Future research can be conducted about exploring reasons why students in GCTE become amotivated to study their courses/subjects/.
- ❖ Future researches can be conducted on how to enhance the EI skills and motivation of college students to promote their academic achievement.

Finally, as a concluding remark, the investigator wants to notice that though the current study reported that there is no significant relationship between EI , motivation and academic achievement, and also while it showed that EI and motivation (except amotivation) have no effect on students' academic achievement in GCTE, instructors in the college should not abandon efforts of developing the students' academic achievement, skills in the areas of EI and designing different strategies to promote the academic motivation of students.

## References

1. Abdullah, S. (2006). *EI and academic achievement: A study in Kolej Matrikulasi Perlis* (Doctoral dissertation, Faculty of Business Management, Universiti Utara Malaysia).
2. Abisamra, N. (2000). The relationship between EI and academic achievement in Eleventh Graders. Retrieved December 16, 2010, from <http://WWW.nadasisland.com/research-intell2.html>
3. Adeyemo, A. & Ogunyemi, B. (2006). EI and Self- Efficacy as predictors of occupational stress among academic staff in a Nigerian university. Retrieved March 02, 2011, from <http://WWW.gazhoo.com/upload/document/2011/03/22>
4. Adeyemo, D. A. (2007). Moderating influence of EI on the link between academic self-efficacy and achievement of university students. *Psychology and developing societies*, 19(2), 199-213.
5. Ali, J., & McInerney, D. M. (2006). Developing a standardized measure of student motivation for use in diverse cultural settings: An overview of research. In *International Conference on Learning Competency ICLC, Seoul, Korea*.
6. Allen, J.D. (2005). *Grades as Valid Measures of Academic Achievement of Classroom Learning*, 78 (5) , 218-225.
7. Amare Sahile, (2001). Effects of students' Academic Competence, Self-Determination and Motivation on school performance in Tana Haiq



- secondary school. *The Ethiopian Journal of Education, Volume XXI, Number 1*, pp.65-89.
8. Aremu, A.O. (2000). Impact of home school and government on primary School pupils Academic Performance. *The Exceptional child*, 5, (1), 106-110.
  9. Aremu, A.O. & Oluwole, D.A. (2001). Gender and Birth order as Predictors of normal pupil's anxiety patterns in examination. Ibadan, *Journal of educational studies*, 1,(1), 1-7.
  10. Aremu, A.O., and Sokan, B.O.(2003). A Multi-Casual Evaluation of Academic Performance of Nigerian Learner: Issues and Implications for National Development. In Ayodele-Bamisiaye,A., Nwazuoke, and A. Oladiran(Eds.), *Education this millennium* (pp. 365- 375). Ibadan, Nigeria.
  11. Aremu,O., Tella, A., & Tella, A. (2006). Relationship among EI, Parental Involvement and Academic Achievement of secondary school students in Ibadan, Nigeria. Retrieved February 23, 2011,from <http://WWW.usca.edu/essays/vol/182006/tella>
  12. Austin, E. J. (2005). EI and Emotional Information Processing; *Personality and Individuals Differences* 39, 403-414.
  13. Ayub, N. (2010). Effect of intrinsic and extrinsic motivation on academic performance. *Pakistan business review*, 8, 363-372.
  14. Bar-On, R. (1997). Bar On Emotional Quotient Inventory; A measure of EI: Technical manual, Retrieved January, 2011, from <http://WWW.reuvenbaron.org/bar-on-model/essay.php?i=6>
  15. Baron,R.A.(1999). *Essentials of Psychology*. 2<sup>nd</sup> edition, USA; Rensselaer Polytechnic Institute, A Viacom Company.
  16. Bloom, B. S., Krathwohl, D. R., & Masia, B. B. (1984). Bloom taxonomy of educational objectives. In *Allyn and Bacon*. Pearson Education.
  17. Brackett, M. A., Martin, P. R., & Marquez, G.P. (2006). Relating EI to Social Competence and Academic Activity in High School Students. *Psicothema. Vol. 18 suppl.* pp. 118-123.
  18. Brackett, M.A., & Salovey, P. (2006). Measuring EI with Mayer-Salovey Caruso EI Test (MSCEIT). *Piscothema, vol.18. SupL.* pp. 34-41.
  19. Brackett, M.A., & Mayer, J.D.(2003). Convergent, Discriminate, and Incremental validity of competing measures of EI. *Personality and social Psychology Bulletin, Vol.29, No.2* , pp.1-12.
  20. Bradberry,T.R.,& Su, L.D.(2006). Ability-versus Skill-based Assessment of EI. *Psicothema, Vol.18, suppl.*, pp.59-66.
  21. Brock, S.J.(2008).EI: Assessment and use, Presented at the 26<sup>th</sup> annual IPMAAC conference on personnel Assessment, Human Capital Development Inc. Retrieved November 15, 2010 from <http://WWW.csus.edu/indiv/brocks/workshops/CASP/ADHDCASP/ADHD/CASP.08.pdf>
  22. Bond, B.and Manser, R.(2009).EI Interventions to increase student Success. Retrieved February 06, 2011, from <http://WWW.heqco.ca/sitecollectioDocuments.Emotiona%intelligenc>
  23. Broussard, S.C., (2002). *The Relationship between classroom Motivation and Academic Achievement in First and Third Graders*. Unpublished Thesis, the School of Human Ecology, Louisiana State University, 1989.
  24. Brouse,H.; Basch,E.; LeBlanc, M.; Mcknight, R., & Lei, T.(2010). College students' Academic Motivation: Difference by gender, class, and source of payment, *13(1)* , 1-11.
  25. Brown, K.S.(2009). *Factors that predict Academic Achievement for Students who are Undecided Majors*. Unpublished Doctoral Dissertation, Virginia Polytechnic and state university, Blacksburg.
  26. Caruso, D. R., Mayer., J.D. & Salovey, P. (2002). Relation of an Ability Measure of EI to personality, *Journal of Personality Assessment*, 79(2), 306-320.
  27. Cambell, L.Cambell, B. and Dickinson,D.(2004). *Teaching and Learning through Multiple Intelligences*. 3<sup>rd</sup> edition, USA.Pearson education Inc.
  28. Celik,S.B. and Deniz, M.E.(2008). A comparison of Scouts' EI levels with regards to Age and Gender variables: A cross- cultural study. *Elementary Education Online*, 7(2), 376-383.
  29. Creekmore, J. (2010). Intrinsic Motivation and its effects on students' Academic Achievement. Retrieved January o5, 2011 from <http://WWW.edarticle.com/article.php?id=1040>.
  30. Chafin, C.N (2006). *The Impact of a Living Learning Community and Inquiry Guided Learning on first year students' EI and Academic Achievement*. Unpublished doctoral Dissertation, North Carolina state University.
  31. Conte, J.M (2005). A review and critique of EI measures, *Journal of organizational Behavior*, 26, 433-440.
  32. Dayioglu,M.,and Turut-Asik, S. (2004). Gender Differences in academic performance in a large public university in Turkey, ERC working

- papers in Economics 04/17. Retrieved 05, February, 2011, from <http://WWW.erc.metu.edu.tr>.
33. Diaz, A.L.(2003). Personal, Family, and Academic factors affecting low achievement in Secondary School. *Electronic Journal of Research in educational psychology and Psychopedagogy*, 1(1), 43-66.
  34. Deci. E.L, Eghrari, H.,Patrick, B.C., and Leone,D.R.(1994). Facilitating Internalization: The Self-determination theory perspective. *Journal of personality*, 62, 119-142.
  35. Deci, E.L., and Ryan, R.M.(2000). The “What and “Why” of goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychological Inquiry*, 11(4), 227-268.
  36. Deci, E.L., Vallerand, R.J., Pelletier, L.G.,and Ryan, R.M.(1991). Motivation and Education: The self-determination perspective. *Educational psychologist*, 26(4), 325- 346.
  37. Deryakulu, D., Buyukozturk,S.,and Ozoinar,H.(2009). Predictors of AAS ICT Teachers with Different Learning styles. *World Academy of Science, Engineering and Technology* , 58(3), 703-710.
  38. Duff, J.M; and Parker, J.D.A; (2005). Making a Successful Transition During the First Year of College: Does EI Matter? Retrieved February 21<sup>st</sup>, 2011, from <http://ajete.education.ecu.edu.au/issues/pdf/352/masters.pdf>
  39. Eisenberg, N.(1994). Empathy. In V.S.Ramachaudran(Ed.), *Encyclopedia of human Behavior* (247-250). New York. Academic Press.
  40. Elliott, S.N., Krachwill, T.R., Cook, J.L., and Travers, J.F.(2003).*Educational Psychology: Effective Teaching and Effective Learning*. 3<sup>rd</sup> edition. USA. The McGraw Hill Companies, Inc.
  41. Elliott, J.G., Hufton, N.R., Willis,W.and Illusion, L.(2005). *Motivation, Engagement and Educational Performance: International Perspectives on the context for learning*.1<sup>st</sup> edition. Uk. Palgrave, MacMillan, Ltd.
  42. Fairchild, A.J., Horst, S.J., Finney, S.J., and Barron, K.E. (1992). Validity Evidence for the Academic Motivation scale: Evaluating New and Existing validity Evidence for the Academic Motivation Scale. Retrieved January 10, 2011 from [http://WWW.jmu.edu/assessment/wm.library/validity\\_evidence\\_AMS.pdf](http://WWW.jmu.edu/assessment/wm.library/validity_evidence_AMS.pdf).
  43. Fariselli, L., Ghini, M., & Freedman, J. (2008). Age and EI. *Six Seconds: The EI Network*, 1-10.
  44. Farooq, A. (2003). *Effects of EI on Academic Performance*. Unpublished Thesis, Institute of Clinical psychology, University of Karachi, Pakistan.
  45. Fernandez- Berrocal, P. and Ruize, D.(2008). EI in Education, *Electronic Journal of Research in Educational Psychology*, 6(2), 421-436.
  46. Festinger, D., DeMatteo D; and Marczyk, G. (2005). *Essentials of Research Design and Methodology*. ( n.e). New Jersey, Canada.John Wiley and Sons, Inc.
  47. Francis, A., Goheer, A., Haver-Dieter,R., Kaplan,A.D., Kerstetter, K., Kirk, A.L.M., Liu,S., Thomas , A.M., and Yeh,T. (2004). *Promoting Academic Achievement and Motivation: A discussion and Contemporary Issues Based Approach*. unpublished Thesis, university of Maryland.
  48. Gibbs, N. (1995). The EQ Factor. *Time Mgazin* , 146(14), 60-68.
  49. Glaser-Zikuda, M. Fuß, S., Laukenmann, M., Metz, K. and Randler, C.(2005). Promoting students’ emotions and achievement: Instructional design and evaluation of the ECOLE- Approach. *Learning and Instruction*, 15, 481-495.
  50. Greenberg, J. and Baron, A.(2003). *Behavior in Organizations*. 8<sup>th</sup> edition. New Jersey, Canada. Prentice Hall.
  51. Hannula, M. S. (2006). Motivation in mathematics: Goals reflected in emotions. *Educational studies in mathematics*, 63(2), 165-178.
  52. Harrod,N.R. and Scheer, S.D.(2005). An Explanation of Adolescent EI in Relation to Demographic Characteristics. *Adolescence*, 40(159) 503-512.
  53. Hein,S. (2007). Innate potential Model of EI:Definition of EI (EI, EQ). Retrieved March 17, 2011, from <http://WWW.Eqi.org/eidetes.htm> “Definitions of EI”
  54. Hein, S. (2005). Notes from Handbook of EI. In R.Bar-On, and D.A. Parker (Eds.), *Hand book of EI*. San Francisco: Jasey-Bass. Retrieved March 06, 2011, from <http://WWW.eqi.org/eidetes.htm>.
  55. Hemmati, T. Mills, J.F., and kroner, D.G. (2004). The validity of the Bar-On EI quotient in an offender Population, *Personality and Individual differences*, 37, 695-706.
  56. Hijaz,S.T.,and Naqvi,S.M.(2006).Factors Affecting students’ Performance: A case of private colleges. *E-Jouranal of Sociology*, 3(1),1-10.

57. Hogan, M. J. Creque Sr, R. E., Barnhart, D. L., Harris, J. I., Majeski, S. A., Wood, L. M., ... & Parker, J. D., (2003). Academic achievement in high school: does EI matter?. *Personality and individual differences*, 37(7), 1321-1330.
58. Holt, S. (2008). *EI and academic achievement in higher education* (Doctoral dissertation, ProQuest Information & Learning).
59. Katyal, A. and Awasthi, E.(2005). Gender differences in EI among adolescence of Chandigarh . *Journal of Human Ecology*, 17(2), 153-155.
60. Lahey, B.B. (1998). *Psychology: An Introduction*. 8<sup>th</sup> edition. Chicago, McGraw Hill companies, Inc.
61. Lavery, L. (1999). Ethnic group differences in the academic motivation of university students. *Retrieved September*, 8, 2016.
62. Lepper, M. R., Corpus, J. H., & Iyengar, S. S. (2005). Intrinsic and extrinsic motivational orientations in the classroom: Age differences and academic correlates. *Journal of educational psychology*, 97(2), 184.
63. Lodge, T. (2003). *Politics in South Africa: From Mandela to Mbeki*. New Africa Books.
64. Low, G., Lomax, A., Jackson, M., & Nelson, D. (2004). EI: A new student development model. In *National Conference of the American College Personnel Association*, Philadelphia, Pennsylvania.
65. Low, G. R., & Nelson, D. B. (2005). EI: The role of transformative learning in academic excellence. *Texas Study of Secondary Education*, 14(2), 41-44.
66. Luzon, C.A; Martos, B.P. M; Zafra, L.E; and Landa, A. M. J.(2006). *The Relationship between EI, Occupational Stress and Health in nurses. A Questionnaire Survey*: International Journal of Nursing Students. University of Jaen, Spain.
67. Marsh II, G. E; and Tapia, M. (2006). The Effect of Sex and Grade Point Average on EI. *Psicothema*. 18, Supl., 108 –111.
68. Márquez, P. G. O., Martín, R. P., & Brackett, M. A. (2006). Relating EI to social competence and academic achievement in high school students. *Psicothema*, 18, 118-123.
69. Mayer, J.D., Caruso, D.R., Salovey, p., and Sitarenios, G. (2003). Measuring EI with the MSCEIT V.2.0. *Emotion*, 3(1), 97-105.
70. Mayer, J.D., Salovey. P.s., and Caruso,D. R. (2008). EI: New Ability or Eclectic Traits? *American Psychological Association*, 63(6), 503-517.
71. Mayer, J., Salovey, P., and Caruso, D.(2000). In R.J.Sternberg (Ed.). *Handbook of EI* (2<sup>nd</sup> edition, 396-420). New York: Cambridge.
72. McLaughlin, G.W., Brozovsky, P.V., and McLaughlin, J.S. (1998). Changing perspectives on student retention: A role for Institutional research. *Research in Higher Education*, 39, 1-17.
73. Miller, B. J. (2007). *Unfolding analyses of the Academic Motivation Scale: A different approach to evaluating scale validity and self-determination theory* (Doctoral dissertation, James Madison University).
74. Min, J.C.H.(2010).Tour guides' EI in relation to Demographic Characteristics, *African Journal of Business Management*, 4(15), 3730-3737.
75. Mitchell, J. V. (1992). Interrelationships and predictive efficacy for indices of intrinsic, extrinsic, and self-assessed motivation for learning. *Journal of Research & Development in Education*.
76. Morrison, T. (2010). EI, Emotion and Social Work: Context, Characteristics, Complications and Contributions, *British Journal of Social Work*, 37(2), 245-263.
77. Morrison, K; Manion, L; and Cohen, L. (2003). Research Methods in Functioning: A comparison of Self- report and Performance Measures of EI, *Journal of Personality and Social Psychology*, 91(4), 780-795.
78. Mulugeta Dadi. (2010). *EI and its link with some Demographic variables and Academic achievement Among Adolescent and Young Adult Students in Adama Town*. Unpublished Master's Thesis, Addis Ababa University.
79. Naderi, H., Abdullah, R., Hamid, T., and Sharir,J. (2008). Intelligence and Gender as predictors of Academic Achievement Among under undergraduate students, *European Journal of Social Sciences* 7 (2), 199-208.
80. Naderi, H., Abdullah, R., Aizan, H.T., Sharir,J.,and Kumar,V. (2009). Creativity, Age, and Gender as predictors of Academic Achievement among undergraduate students, *Journal of American science*, 5(5), 101-112.
81. Nasir, M. and Masrur, R.(2010). An exploration of EI of the students of IIUI in Relation to gender, Age and Academic Achievement, *Bulletin of education and Research*, 32(1), 37-51.
82. Nirmala, J. (2010). EI among college students in Eritrea. *Experiments in Education*, 38(1), 1-9.

83. Ock, J. (2008). Influence of Nonacademic Activities on College Students' Academic Performance. *VOLUME 1-SPRING 2008*, 13.
84. Ogundokum, M.O., and Adeyemo.D.A. (2010).EI and Academic Achievement: The moderating Influence of Age, Intrinsic and Extrinsic Motivation, *the African Symposium*, 10(2), 127-140.
85. Parker, J.D., Creques, R., Harris, J., Majeski, S.A., Wood, L.M., and Hogan,J. (2003). Academic success in High school: Does EI Matter? ERIC Clearing House. Retrieved December 12, 2010, from <http://redalyc.uaemex.mx/pdf/727/72709508.pdf>.
86. Parker, J.D.A., and Duffy, J.M.(2005). Making a successful transition during the first year of college: Does EI Matter? Retrieved February17,2011, from [http://WWW.myeqi.com/Emotional Intelligence First\\_yr\\_college.pdf](http://WWW.myeqi.com/Emotional_Intelligence_First_yr_college.pdf).
87. Parker, J.D., Hogan, M.J., Eastabrook, J.M., Oke,A., and Wood, L.M. (2006). EI and student retention: Predicting the successful transition from high school to University. *Personality and Individual differences*, 41, 1329-1336.
88. Parker, J.D.A; Summerfeldt, L.J., Hogan, M.J.,and Majeski, S. (2004). EI in academic success: Examining the Transition from high school to University. *Personality and Individual differences*, 36, 163-172.
89. Petrides, KV and Furnham, A. (2001).Trait EI: Psychometric Investigation with Reference to Established Trait Taxonomies. *European Journal of Personality*, 15, 425- 448.
90. Petrides, K.V., Frederickson, N and Furnham, A. (2004).The Role of trait EI in academic performance and deviant behavior at school. *Personality and Individual Differences*, 36, 277-293.
91. Peterson, A. (2004). *Engendering Emotions*. 1<sup>st</sup> edition. USA.Palgrave, MacMillan, Ltd.
92. Petrides, K.V., Perez-Gonzalez, J.D., & Furnham, A. (2007). On the Criterion and Incremental Validity of Trait EI: *Cognition and Emotion*, 21(1), 26-55.
93. Pintrich, P.R., and Schunk, D, H. (2002). *Motivation in Education: Theory Research, and Applications*. 2<sup>nd</sup> Edition. Columbus, Ohio. Pearson Educ., Inc.
94. Ratelle, C. F., Guay, F., Vallerand, R. J., Larose, S., & Senécal, C. (2007). Autonomous, controlled, and amotivated types of academic motivation: A person-oriented analysis. *Journal of educational psychology*, 99(4), 734.
95. Reynolds, W.M., Miller, G.E.,& Weiner, I.B.(2003).Handbook of Psychology. Retrieved February 15, 2011, from <http://books.google.com.et/books?id=p77Casylzwoc>.
96. Robinson, S. (2009). *Foundation of Educational Psychology*. 2<sup>nd</sup> edition, New Delhi. Anne Books pvt. Ltd.
97. Rotgans, J. (2009). Motivation, achievement-related behaviours, and educational outcomes.
98. Rusillo, M.T.C., and Arias, P.F.C. (2004).Gender differences in Academic Motivation of Secondary school students, *Electric Journal of Research in Educational Psychology*, 2(1), 97-112.
99. Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 55(1), 68.
100. Ryan, R. M.,and Deci, E.L.(2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions: Contemporary Educational psychology. *Psychologist*, 55(1), 68-78.
101. Ryan, R.M., and Deci, E.L.(2002). Intrinsic and Extrinsic Motivations: Classic Definitions and New direction; Contemporary Educational Psychology. <http://WWW.sciencedirect.com/science/article/pii/S0361476X99910202>
102. Salovey, P. and Brackett, A. M.(2006). Measuring EI with the Mayer- Salovey –Caruso EI test (MSCEIT), 18. *supl.*, 34 – 41.
103. Salovey, P; and Lerner, N. (2006). Relating Emotional Abilities to Social Research in Educational Psychology and Psychopedagogy, 1 (1), 43-66.
104. Salovey, P., and Grewal, D. (2005). The Science of EI. *Current Directions in Psychological science*. 14(6), 281-286.
105. Sample, J.(2004). BarOn Emotional Quotient Inventory: Short (EQ-I:S),Feedback Report. Retrieved March 13, 2011, from [http://WWW.sychassessments.com.au/products/7/prod7\\_report\\_1.pdf](http://WWW.sychassessments.com.au/products/7/prod7_report_1.pdf)
106. Seifert, K. Sutton,R. (2009). *Educational Psychology: A global Text*. 2<sup>nd</sup> edition. Zurich, Switzerland.
107. Schop,C.(2009). Glosary of Motivation-what is Inside? Retrieved January 10,2011, from [http://WWW.selfmademiracle.com/tagglossary\\_of\\_motivation/](http://WWW.selfmademiracle.com/tagglossary_of_motivation/)
108. Sharir, J., Hamid, A. T., and Abdullah, R. (2008). Intelligence and Gender as Predictors of Academic Achievement Among under graduate students: *European Journal of Social Sciences*, 7 (2), 654-787.



109. Singh, B., Singh, M., & Singh, K. (2009). The influence of EI and learning style on student's academic achievement. Retrieved November 9, 2009.
110. Sintayehu Amnbachew,(2009). *The Relationship among EI, Parent-Child interaction and Academic Achievement*. Unpublished Master's Thesis, BDU, post-graduate library.
111. Stottlmyre, B.G. (2002). *A conceptual framework for EI in education: Factors affecting student Achievement*. Unpublished doctoral dissertation, Texas A & M University – Kingsville.
112. Stys, y. and Brown, S.(2004). A Review of EI Literature and Implications for corrections. Retrieved March 04, 2011, from [WWW.Esc-scc.gc.ca/text/](http://WWW.Esc-scc.gc.ca/text/)
113. Sue-Chan,C., and Latham,G.P.(2004).The situational interview as a predictor of Academic and Team Performance: A study of the mediating effects of cognitive ability and EI.
119. Vallerand, J., Pelletier,G., Blais, R.,and Briere, M., Senecal, C.and Vallieres, E.(1992). The Academic Motivation Scale: A measure of intrinsic, extrinsic, and amotivation in education. *Educational and psychological measurement*, 52, 1003-1017.
120. Vallerand,R.J.,Pelletier,L.G.,Blaise,M.R.,Briere, N.M.,Senecal,C.B.,andVallieres,E.F.(1992).Academic Motivation Scale (ams-c28) College (cegep) version: Educational and Psychological Measurement. Retrieved January 15,2011,from [http://WWW.er.uqam.ca/nobel/r26710/LRCS/scales/emcegep\\_en.doc](http://WWW.er.uqam.ca/nobel/r26710/LRCS/scales/emcegep_en.doc).
121. Vela,R. (2003). The role of EI in the academic Achievement of first year college students. Retrieved on February 18,2011, from <http://WWW.shsu.edu/sacs/compliancereport/cr-edentials/vita/0330674.pdf>.
122. Wæge, K., (2010). Motivation for learning mathematics in terms of Needs and goals, Proceedings of CERME 6, January 28<sup>th</sup> – February 1<sup>st</sup>, 2009, Programme for Teacher Education, Norwegian University of science and Technology, Trondheim. Retrieved 3<sup>rd</sup> February, 2011, from <http://WWW.inrb.fr/publication/edition-electronique/cerme6/wg1-06-waeg>.
123. Wilson, L.O (1997). Highlights of EI: Excerpts and comments from Daniel Goleman. Retrieved *International Journal of Selection and Assessment*,12(4), 312-325.
114. Sternberg, R.J. (2000). *Pathways to Psychology*. 2<sup>nd</sup> edition. USA. Harcourt. Inc.
115. Sunbul, A.M., and Aslan,Y.(2007).The Relationship between EI and Achievement among 1<sup>st</sup> and the 4<sup>th</sup> grade faculty students. Retrieved March 22, 2011, from <http://tef.selcuk.edu.tr/salan/sunbul/elesf.doc>.
116. Tella,A. (2007). The Impact of Motivation on students' Academic Achievement and Learning Outcomes in Mathematics among Secondary school students in Nigeria. *Eurasia Journal of Mathematics, Science and Technology Education*, 3(2), 149-156.
117. Tella, A.(2008). Teacher variables as predictors of Academic Achievement of primaryschool pupils' Mathematics, *International electronic journal of elementary Education*, 1(1), 16
118. Vallerand, R.J., and Bissonnette, R. (1992). Intrinsic, extrinsic, and motivational styles as predictors of behavior: A prospective study. *Journal of personality*, 60, 599-620. February 10,2011, form <http://WWW.uwsp.edu/edu/education/wilson/learning/emoti.htm>.
124. Wood, L. M., Parker, J. D., & Keefer, K. V. (2009). Assessing EI using the Emotional Quotient Inventory (EQ-i) and related instruments. In *Assessing EI* (pp. 67-84). Springer, Boston, MA.
125. Wudu Melese and Getahun Fenta.(2009). Trends and causes of Female students Dropout from Teacher Education Institutions of Ethiopia: The case of Jima university. *Ethiopian Journal of Education and Science*, 5(1), 1-22.
126. Yunus, A., and Ali, W.(2009). Motivation in Learning of Mathematics. *European Journal of social Sciences*, 7(4), 45-68.
127. Zember, M.J., and Blume, L.B. (2009). Gender and Academic Achievement: A Contextual Approach. Retrieved December 05/2010from <http://WWW.osbchicago.org/Images/SSFall2008.pdf>.
1. Zikuda, M.G., Fub. S., Laukenmann M., Metz, k., and Randler, C. (2005). *Promoting Students' Emotion and Achievements - Instructional design and Evaluation of the ECOLE- approach: Learning and Instruction*, Institute for Educational Psychology and Sociology. Ludwigsburg, Germany. Elsevier Ltd.

