

Mediating Role of Emotional Intelligence in Academic Achievement of the Graduate Students

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ABSTRACT

The present research endeavored to explicate the impact of emotional intelligence on the academic achievement of the graduate students. The graduate students age ranging from 18 to 25 years with equal number of males ($M = 20.12$, $SD = 1.92$) and females ($M = 20.38$, $SD = 1.34$) served as the participants in the study whose emotional intelligence was assessed with the help of Mangal Emotional Intelligence Inventory (Mangal & Mangal, 2006). The scores of the annual examination were taken as the indicator of their academic achievement. The results of the study demonstrated that the academic achievement of the participants was shaped by their levels of emotional intelligence and gender. The results of the study have discussed in the light of current theories of emotional intelligence and academic achievement. The results of the study have implications for policy makers, educationalists, educational planners, administrators, researchers and parents.

Keywords: *Emotional Intelligence, Academic Achievement*

The modern age is characterized by stiff competition in every sphere of life. The academic achievements of the students have become a major source of concern to all stakeholders in the education. The parents and government are in agreement that their huge investment on education is not yielding the desired dividend (Adegbite, 2005). Globalization, commercialization and liberalization of economy have posed new challenges and set new standards before the current educational system. Universalization of primary and secondary education followed by plans to move in the same direction for Indian higher education compelled the policy makers and educationists to rethink about their strategies and to get new insights into this dynamic state of affairs. The new emphasis on innovation and open learning have created atmosphere to develop a fuller understanding of the dynamics of learners.

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Edun and Akanji (2008) asserted that poor academic achievement among our students is usually attributed to the school authority and teachers' attitude to their work. Oyinloye (2005) attributes the problem of poor academic achievement to low level of emotional intelligence among the students. He believes that "students who lack emotional intelligence show some adaptive challenges or in some ways fail to handle effectively the demands of school work. Such students might be said to have little or no emotional intelligence and may not be capable of attaining personal goals which include high academic achievement." It is apparent that the primary focus of education is academic performance that has been measured using traditional Intelligence tests or other forms of standardized examination, and schools cannot ignore or neglect the development of emotional domains and other personal factors contributing to the success of students (Nelson and Low, 2003). Researchers who have sought to discover factors associated with high academic performance have examined an array of variables such as social behaviour (Taylor, Casten, Flickinger, Roberts, & Fulmore, 1994); academic self-concept (Steele & Aronson, 1995); learning strategies (Covington, 1984); motivation (Deci & Ryan, 1992); Parenting Styles (Baumrind, 1991); and socio-economic status (Shultz, 1993).

The decline in the academic achievement of the students in India has been a major source of concern to stakeholders and policy makers. Measures taken by the government at various levels to eliminate this problem and improve the academic achievement of students have focused more on improving infrastructure, equipping the schools and providing qualified teachers, may not have produced the desired results. Poor academic achievement among the students limits their potentials for advancement in career and their ability to compete effectively in an ever increasingly competitive global village. Though the modern curricula are being designed and developed to address this inherent gap but the importance of students' emotional standard of performance may have been seen to be missing, misunderstood or neglected. It is therefore necessary to interrupt the ugly trend of poor academic achievement of the students by developing and enhancing their emotional intelligence skills which have been observed to be major determinants of academic achievement.

An overview of Child Well-being in Rich Countries (UNICEF 2007) acknowledged severe problems of deprivation and psychological maladjustment among children and teenagers and that disorderly behaviour has increased substantially in the last 20 years. The repercussions of psychological problems are many and varied, affecting several developmental areas and ecosystems in which the adolescent is involved, as well as compromising long-term mental health (European Pact for Mental Health and Well-being, 2008). In recent years, emotional intelligence appeared as a new framework to explain human outcomes as a result of a set of abilities to process and utilize emotional information (Mayer, Roberts & Barsade, 2008). This perspective is based on the hypothesis that people who are capable of expressing and understanding emotions, assigning meaning to emotional experience, and regulating their feelings will be better adjusted, psychologically and socially (Ciarrochi, Chan, Caputi, &

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Roberts, 2001). Mayer and Salovey's (1997) ability model considers emotional intelligence as the capacity to process emotional information. Briefly, these researchers conceive emotional intelligence as "the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth" (Mayer & Salovey, 1997). Cherniss (2004) stated the importance of emotional intelligence as necessary to improving performance and psychological well-being in school work.

Emotional intelligence has been suggested to be an important factor to predict mental and physical health (Salovey & Mayer 1990). The relation between emotional intelligence and emotional disorders such as depression and anxiety and overall physical and mental health has been well documented in many researches (Martins, Ramalho, & Morin, 2010; Schutte, Malouff, Thorsteinsson, Bhullar, & Rooke, 2007). It has been reported that the individuals with poor psychological adjustment generally reported greater attention to their feelings, lower clarity of them, and inability to regulate their own mood states (Fernández-Berrocal & Extremera 2008).

Despite the important role of emotional intelligence in various aspects and performance indices of the individuals, most of the research has been conducted which lack exact mechanisms underlying these associations. There is a dearth of studies involving emotional intelligence and academic achievement especially in Indian socio-cultural milieu which is qualitatively dissimilar to those of Western and American cultures with whom most of the available studies belong. The objectives of the study were to inquire into the nature of patterns of relationship between emotional intelligence and academic achievement of the students, to partial out gender differences in their academic achievement as a function of emotional intelligence and to illustrate the interaction effect of emotional intelligence and gender on the academic achievement of the students.

Hypotheses

The following hypotheses have been put forth to appropriate the objectives envisaged in the present study:

- (1) Participants with average and high emotional intelligence will show higher scores on academic achievement measure as compared to the participants having low emotional intelligence.
- (2) There will be positive correlations among the scores of emotional intelligence and the scores of academic achievement of graduate students.

METHODS AND PROCEDURE

Participants

One hundred and twenty graduate students age ranging from 18 to 25 years with equal number of

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males ($M = 20.12$, $SD = 1.92$) and females ($M = 20.38$, $SD = 1.34$) of M. L. K. P. G. College Balrampur, Uttar Pradesh served as the participants in the present study. The stratified random sampling method was used as the technique to select the sample. With the prior permission of the college administration, the names and other details were collected randomly from the roll list who fell in the categories of low, average and high emotional intelligence categories out of two hundred twenty four on initial screening.

Tools

The emotional intelligence developed by Mangal and Mangal (2006) comprising 100 items covering four areas of emotional intelligence viz. intra-personal awareness (own emotions), interpersonal awareness (other emotions), intra-personal management (own emotions) and interpersonal management (other emotions) was applied as a tool. Twenty five items have been developed for each the four components of emotional intelligence. It has been standardized on 2200 (1050 males & 1150 females) students of 16+ years age. The reliability and validity of the scale have been well documented in previous researches. One mark for presence of emotional intelligence and o (zero) mark for absence of emotional intelligence were awarded and totaled to get scores for each four separate components and grand total for overall emotional intelligence. The raw score ranges from 90 & above, 77-89, 63-76, 49-62 and 48 & below indicated very good, good, average, poor and very poor, respectively for males. Similarly, score ranges 88 & above, 75-87, 61-74, 48-60 and 47 & below indicated very good, good, average, poor and very poor, respectively for females. The scores of the annual examination were taken as the indicator of their academic achievement.

Procedure

The whole sample was divided into twelve groups comprising ten participants each for the convenience of administering the tool. Before conducting the actual study, an integrated strategy was developed and a thorough study of the questioner and other details including the precautions and instructions were read and understood. As per the formulated plan of the study, the scale was administered and the scoring was carried out as per the guidelines depicted in their manuals. The raw score so obtained were arranged as per the design of the study. When the task of data collection was over, the same were treated with the help of SPSS-16 (Statistical Package for the Social Sciences), a special software programme to analyze the data. The means, Standard Deviations (SDs), Analyses of Variance (ANOVA), correlation and step-wise regression analysis were carried out.

RESULTS

The present study attempted to expound the impacts of low, average and high levels of emotional intelligence and gender on the academic achievement of graduate students. One hundred and twenty graduate students with equal number of males and females took part in the present study whose emotional intelligence and academic achievement were measured. The marks secured by

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the participants in their annual examinations conducted by University were taken as the index of their academic achievement.

Table 1: Mean and SDs of Academic achievement scores of male and female students having low, average and high emotional intelligence

Gender	Level of emotional Intelligence	Mean	SD	N
Male	Low	53.30	1.75	20
	Average	61.65	1.84	20
	High	62.55	1.64	20
	Total	59.17	4.54	60
Female	Low	51.80	3.04	20
	Average	60.15	1.66	20
	High	62.10	0.92	20
	Total	58.02	4.94	60
Total	Low	52.55	2.56	40
	Average	60.90	1.89	40
	High	62.33	1.33	40

The Table 1 indicates that the males with low ($M = 53.30$, $SD = 1.75$) and average ($M = 61.65$, $SD = 1.84$) emotional intelligence exhibited higher academic achievement level as compared to the female participants ($M = 51.80$, $SD = 3.04$) and ($M = 60.15$, $SD = 1.66$) with same profiles of emotional intelligence. The case was reversed with the male participants having high emotional intelligence who evinced lower mean academic achievement ($M = 62.55$, $SD = 1.64$) as compared to their female ($M = 62.10$, $SD = 0.92$) counterparts. The participants with low ($M = 52.55$, $SD = 2.56$), average ($M = 60.90$, $SD = 1.89$) and high levels of emotional intelligence participants ($M = 62.33$, $SD = 1.33$) differed in acquisition of their mean academic achievement scores.

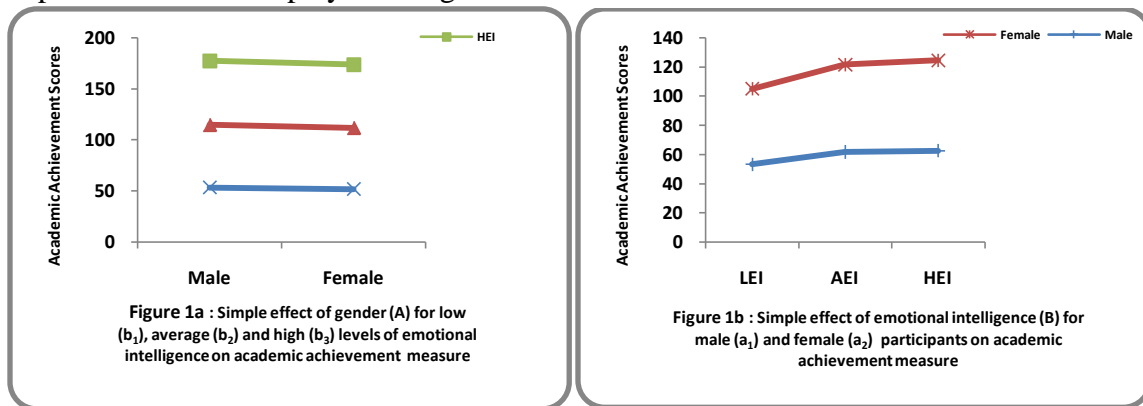
Table 2: Summary of the ANOVAs of the academic achievement scores as the functions of emotional intelligence and gender

Source of Variation	SS	df	MS	F	p
Gender (A)	39.68	1	39.68	10.84	.081
Emotional Intelligence (B)	2230.72	2	1115.36	304.74	.003
A x B	7.35	2	3.68	1.01	.370
Within Ss. Error	417.25	114	3.66		
Total	2695.00	119			

The scores of academic achievement scores of male and female participants with low, average and high levels of emotional intelligence were further analyzed by applying Analysis of Variance (ANOVA) to uncover the intricacies of main and interaction effects of emotional intelligence and gender on the academic achievement of the participants. Table 2 indicates that the F-value of

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the main effect of emotional intelligence, $F(2, 114) = 304.74, p = .003, \eta^2_p = .997$ (partial eta squared), was found to be statistically significant while the main effect of gender, $F(1, 114) = 10.84, p = .081, \eta^2_p = .844$, and interaction effect of gender X emotional intelligence, $F(2, 114) = 1.01, p = .370, \eta^2_p = .017$, could not achieve the levels of statistical significance. The simple interaction effects of gender and emotional intelligence on the academic achievement of the participants have been displayed in Figure 1a and 1b.



The scores of all the three levels of emotional intelligence and academic achievement of male and female participants were treated with the coefficient of correlation by using Pearson Product Moment method among, the details of which have been displayed in Table 3.

Table 3: Coefficients of correlation among the scores of emotional intelligence and academic achievement of male and female participants

Gender	Emotional Intelligence	Academic Achievement		
		r	p	N
Male-Male	Low	.471	.036	20
Female-Female		.112	.638	20
All		.060	.714	40
Male-Male	Average	.323	0.165	20
Female-Female		.145	.541	20
All		.125	.441	40
Male-Male	High	.449	.47	20
Female-Female		.294	.208	20
All		.235	.145	40
All Males & Females	All levels of EI	.834	.000	120

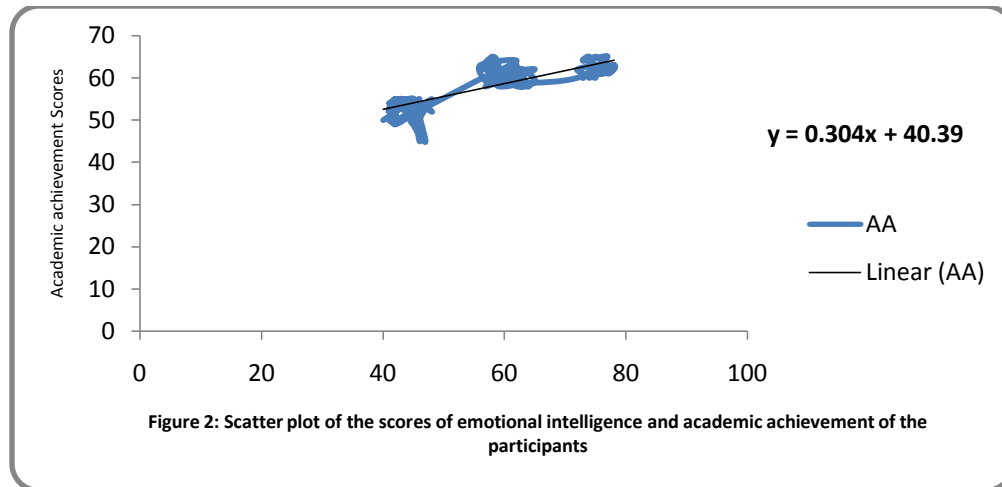
Table 3 indicates that the scores of emotional intelligence and academic achievement of male and female participants at cell-wise, variable-wise and overall demonstrated positive coefficients of correlation. The overall scores of emotional intelligence and academic achievement of the participants demonstrated a very high level of positive correlation ($r = .834, p = .000$). A Stepwise regression analysis of the overall scores of emotional intelligence and academic achievement of the participants was computed which indicated that ($F = 270.32, p = .000, R^2 =$

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.696, $df = 1, 119$) about 69.60% of the variance in academic achievement of the students was contributed by their emotional intelligence. The regression equation ($y = 0.304x + 40.39$) depicted in Figure 2 indicates there was a positive correlation (positive y-intercept) between emotional intelligence and academic achievement and as per the equation, an increase (by one unit) in the emotional intelligence will result in an increment of 0.304 unit in the academic achievement of the students. So it can be concluded that greater the emotional intelligence higher will be the academic achievement of the students.

DISCUSSION

The results of the present study demonstrated that the scores of academic achievement of the students were shaped by their levels of emotional intelligence and gender. In recent past, the researchers have reported that affective components comprising mood, feelings and emotions have significant contributions in adjustment and academic achievement of the students and the way students undergo and perform in accordance with the anticipated tasks. Different competencies nest in emotional intelligence. The emotional competence is a learned capability based on emotional intelligence which results in qualitatively wonderful performance at work of all sorts (Goleman, 1998). However, the researches indicate that “one of psychology’s open secrets is the relative inability of grades, IQ or examination scores, despite their popular mystique, to predict unerringly who will succeed in life” (Goleman, 1996).



Recent researches indicate a close association between intelligence and school performance. The patterns of association observed between emotional intelligence and the adjustment and academic achievement of the students are positive (Schutte, Malouff, Hall, Haggerty, Cooper, Golden & Dornheim, 1998; Ogundokun, 2007). Contrarily, another group of researchers have reported no relationship between emotional intelligence and, adjustment and academic achievement (Koifman, 1998; Sutarso, Baggett, Sutarso & Tapia, 1996). A study (Ogundokun, & Adeyemo, 2010) revealed that emotional intelligence has a significant correlation with academic achievement and adjustment of students. The findings of the present research are consistent with the earlier ones (Schutte et al.; 1998; Tapia, 1998) who reported a significant relationship

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between emotional intelligence and the Scholastic Aptitude Test. The effect of emotional intelligence on academic success is well documented in the literature (Adeyemo, 2007; Marquez, Martin, & Bracket, 2006). These results are explained assuming that emotional intelligence competences, such as ability to regulate one's feeling, problem solving, intrapersonal and interpersonal skills are highly germane to academic success and adjustment. The students who are adept in emotional management could use such skill to ward off stress and anxiety associated with test-taking and examination. In addition, ability to display interpersonal skills may assist students to seek academic help from teachers, peers and resource persons. In short, emotionally intelligent student would have better academic achievement or through emotionally intelligence there is a possibility of improvement of academic achievement.

It has been found that students with high EQ tend to be better learner, more confident, optimistic, creative, flexible, happier, successful at solving problems, being able to cope with stress with high self-esteem, with fewer behavioural problems, and also being-able to handle their emotions much better (Abraham, 1999, Cooper, 1997) and perform better in school (Tiwari, 2011). It also helps teacher to identify feeling and fears of students and recognize feelings and unmet emotional needs (Abraham, 1999; Hein, 2001). In addition, emotionally intelligence may have relevance in preparing and training teachers (Byron, 2001). Thus teachers may improve their potential to reach students with the socio-emotional learning activities during growth and development, and can also provide the necessary support to enhance learning activities and educational experiences.

It results of the present study evinced the abiding role of emotional intelligence in the academic achievement of the students. The conclusions of the present study have significant implications for the researchers, academicians, policy makers, administrators and the parents. The future research may focus the ways and means of instilling the students with emotional intelligence not only for academic success but also for their all-round development and growth in all walks of life. Future researches should also focus on other non-cognitive abilities such as forgiveness (Mudgal & Tiwari, 2015) and body image (Jain & Tiwari, 2016) which have been reported to be closely associated with performance in important areas of human functioning including academics. In addition, mixed methods design might be helpful in unearthing the true profile of the antecedents and correlates of academic success and achievement.

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Conflict of Interests

The author declared no conflict of interests.

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