Emotional Intelligence and Academic Achievement Among Students at the Higher Secondary Level

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Abstract

The present study aims to investigate emotional intelligence and academic achievement of students at the higher secondary level. Using random sampling technique 321 students, from the higher secondary level in different systems of education, namely, state, matriculation and central board schools are chosen. The Emotional Intelligence Scale (Hydes and others, 2002) has been used to assess the emotional intelligence and the marks scored in Science were taken from their half yearly performance. The data collected is subjected to statistical analysis, namely, mean, standard deviation, 't'- test, 'F'- ratio, Karl Pearson's Product Moment Correlation Co-efficient 'r'. Results show a positive significant correlation between emotional intelligence and academic achievement among the students. Further the students belonging to the central board schools have a higher level of emotional intelligence compared to students in state board but did not differ with students in matriculation board schools at the higher secondary level. Similarly, students belonging to central board schools are found to perform better in academics compared to students in state and matriculation board schools at the higher secondary level.

Keywords: Emotional intelligence, Academic Achievement.

Introduction

Emotional intelligence refers to an ability to recognize the meanings of emotion and their relationships and to reason and problem-solve on the basis of them. Emotional intelligence is involved in the capacity to perceive emotions, assimilate emotion-related feelings, understand the information of those emotions, and manage them. Researchers investigated dimensions of emotional intelligence by measuring related concepts, such as social skills, interpersonal competence, psychological maturity and emotional awareness, long before the term 'emotional intelligence' came into use. Teachers in schools have been teaching the rudiments of emotional intelligence since 1978, with the development of the Self Science Curriculum and the teaching of classes such as "social development," "social and emotional learning," and "personal intelligence," all aimed at raising the level of social and emotional competence" (Goleman, 1995). Social scientists are just beginning to uncover the relationship of emotional intelligence to other phenomenon, e.g., leadership (Ashforth and Humphrey,

1995), group performance, individual performance, interpersonal/ social exchange, managing change, and conducting performance evaluations (Goleman, 1995).

Emotional intelligence represents an ability to validly reason with emotions and to use emotions to enhance thought. Emotional Intelligence encompasses the following five characteristics and abilities:

➤ **Self-awareness**--knowing your emotions, recognizing feelings as they occur, and discriminating between them
➤ **Mood management**--handling feelings so they're relevant to the current situation and you react appropriately
➤ **Self-motivation**--"gathering up" your feelings and directing yourself towards a goal, despite self-doubt, inertia, and impulsiveness
➤ **Empathy**--recognizing feelings in others and tuning into their verbal and nonverbal cues
➤ **Managing relationships**--handling interpersonal interaction, conflict resolution, and negotiations

Need for the Present Study
Research in brain-based learning suggests that emotional health is fundamental to effective learning. According to a report from the National Center for Clinical Infant Programs, the most critical element for a student's success in school is an understanding of how to learn i.e. Emotional Intelligence. The key ingredients for this understanding are confidence, curiosity, intentionality, self-control, relatedness, capacity to communicate and ability to cooperate. These traits are all aspects of emotional intelligence. Basically, a student who learns to learn is much more apt to succeed. Emotional intelligence has proven a better predictor of future success than traditional methods like the GPA, IQ, and standardized test scores. Hence, the great interest in emotional intelligence on the part of corporations, universities, and schools nationwide. The idea of Emotional Intelligence has inspired research and curriculum development throughout these facilities. Researchers have concluded that people who manage their own feelings well and deal effectively with others are more likely to live content lives. In addition, happy people are more apt to retain information and do so more effectively than dissatisfied people.

Building one's emotional intelligence has a lifelong impact. Many parents and educators, alarmed by increasing levels of conflict in young school children--from low self-esteem to early drug and alcohol use to depression, are rushing to teach students the skills necessary for emotional intelligence. Since emotional intelligence is a master aptitude, a capacity that profoundly affects all other abilities, either facilitating or interfering with them (Goleman, 1995), the need is felt to investigate the emotional intelligence and academic achievement among students.

Review of Related Literature
Studies conducted Abroad
According to Mayer and Salovey (1995) emotional intelligence is the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth. Emotional intelligence is emerging as a critical factor for sustaining high achievement, retention, and positive behavior as well as improving life success. Increasingly, schools and educational organizations are turning emotional intelligence seeking a systemic solution to improve outcomes, both academic and social. The studies pertaining

to emotional intelligence and academic achievement conducted abroad have been compiled and presented hereunder.

Farooq (2003) examined the effect of emotional intelligence on academic performance of 246 adolescent students and found that students with high emotional intelligence show better academic performance than the students with low emotional intelligence.

Drago (2004) examined the relationship between emotional intelligence and academic achievement in non-traditional college students. Since students differed in cognitive ability, with some students being better prepared for the collegiate environment than others, the role of emotional intelligence in academic achievement must be better understood. Non-cognitive factors such as emotional intelligence may supplement or enhance student cognitive ability. In this study, emotional intelligence, achievement motivation, anxiety, and cognitive ability were predictor variables. The criterion variable was academic achievement as measured by student GPA. Results demonstrated that emotional intelligence to be significantly related to student GPA scores, student cognitive ability scores, and student age.

Parker and others (2005) examined the impact of emotional intelligence on the successful transition from high school to university. Results revealed that academically successful students had significantly higher levels of several different emotional and social competencies. These findings suggest that emotional intelligence plays an important role in the successful transition from high school to university.

Mestre and others (2006) investigated in a sample of 127 Spanish adolescents, the ability to understand and manage emotions, assessed by a performance measure of emotional intelligence (the MSCEIT), correlated positively with teacher ratings of academic achievement and adaptation for both males and females. Among girls, these emotional abilities also correlated positively with peer friendship nominations. After controlling for IQ and the Big Five personality traits, the ability to understand and manage emotions remained significantly associated with teacher ratings of academic adaptation among boys and peer friendship nominations among girls. Self-perceived emotional intelligence was unrelated to these criteria. These findings provided partial support for hypotheses that emotional abilities are associated with indicators of social and academic adaptation to school.

The study conducted by Hassan and others (2009) involved a sample of 223 form 1 and form 4 students. Process of data collection was administered by using a set of questionnaire which includes a self report measure of emotional intelligence adapted from Schutte Self-Report of Emotional Intelligence (SSRI) and Beck Anxiety Inventory (BAI). T-test analysis showed that there were no significant differences for the emotional intelligence level within all students between ages 13 and 16. However, there were significant differences for the emotional intelligence level among female students in accordance to age. The results showed that there were significant differences for emotional intelligence level among all students between both genders. Mean score of emotional intelligence within female students appeared to be higher than male students. Pearson correlation analysis showed that emotional intelligence levels of all students were significant negatively in relation to anxiety level. Emotional intelligence was also significant positively in correlation with academic achievement of all variables including students' age and gender.

Tamannaifar and others (2010) conducted a study on 6,050 students at the University of Kashan to explore the relationship between emotional intelligence, self-concept and self esteem with academic achievement. Students as a sample were randomly chosen. It was found from the study emotional intelligence, self concept and esteem, of students was found to be significantly related to their academic achievement.

The study conducted by Yahaya and others (2011) investigated the relationship between the identified five dimensions of emotional intelligence, namely self-awareness, emotional management, self-motivation, empathy, interpersonal skills and academic performance. This study aimed to identify whether the five dimensions of emotional intelligence have been able to contribute to academic performance. Statistical inference of the Pearson-r and multiple regression was used to analyze the data. The results showed that the significant relationship between self-awareness ($r = 0.21$), emotional management ($r = 0.21$) and empathy ($r = 0.21$) at the level of $p <0.05$ with academic performance. Findings from multiple regression analysis (stepwise) showed that only three dimensions of emotional intelligence which is self-awareness (ß = 0261), self motivation (ß =- 0182) and empathy (ß = 0167) accounted for 8.7% of variation in criterion (academic performance). Research also presented a model designed to reflect the relationship between the dimensions of emotional intelligence and academic performance.

Studies conducted in India
The emotional intelligence construct has important clinical and therapeutic implications because it has emerged from an amalgamation of research findings on how people appraise, communicate and use emotion (Malekari and Mohanty, 2011). Zeidner and others (2004) correctly pointed out that there hasn't been sufficient research to fully understand the impact emotional intelligence has on academic success. In line with the above views a few studies have been conducted in the Indian context.
Kattekar (2010) conducted a study to investigate the impact of emotional intelligence on the academic achievement in Kannada language of 500 standard IX students in the Karnataka state. He found a positive relationship between emotional intelligence and academic achievement of students.
The study conducted by Bai (2011) intended to examine anxiety proneness and emotional intelligence in relation to academic achievement of pre-university students. Study being an exploratory student performance in examination has been considered seriously to examine if there is any influence of anxiety proneness and emotional intelligence on their academic achievement or not. The study involved 500 Pre-University students selected from Bangalore Urban and Rural area who were studying in Science, Arts and Commerce stream by using stratified random sampling procedure. The study revealed that, Arts, Science and Commerce students of PUC have significant difference in academic achievement, anxiety proneness and emotional intelligence and its dimensions Arts and Science of PUC have significant difference in anxiety proneness and emotional intelligence. Commerce and Science students of PUC have significant difference in anxiety proneness and emotional intelligence.

Statement of the Research Problem
An exhaustive review of related literature on emotional intelligence and academic achievement of students has been conducted in order to evolve a research study. The problem for research was based on the following research questions:
(i) *Does emotional intelligence affect academic performance of?*
(ii) *Do the students in different categories of schools differ significantly in their emotional intelligence and academic achievement?*
Based on the questions generated the following major objectives were extrapolated:

➢ To investigate if there is any significant difference in emotional intelligence and academic achievement among students studying in state, matriculation and central board schools at the higher secondary level and

➢ To investigate if there is any significant relationship between the select variables among students in state, matriculation and central board schools at the higher secondary level.

Thus, the problem is stated as: *Emotional Intelligence and Academic Achievement among Students at the Higher Secondary Level.*

Methodology
Population and Sample Characteristics
The target population for the present study is the students in different categories of schools following different systems of education at the higher secondary level. From the target population a sample of 321 students (106 state, 110, matriculation and 105 central board students) are chosen.

Instrument
The research tool used for the present study to analyze the, self-concept of students in different systems of education at the higher secondary level is Emotional Intelligence Scale (Hydes and others, 2002) and for academic achievement the achievement in all subjects was taken.

Analyses and Interpretation of Results
Table-1:
Analysis of Correlation between the Select Variables among Students at the Higher Secondary Level

Variable	Emotional Intelligence	Academic Achievement
Emotional Intelligence	1	0.25 **
Academic Achievement		1

**Significant at 0.01 level

From the above table (Table-1) it is evident that the select variables of the present study, namely, emotional intelligence and academic achievement are all positively correlated with each other and significant at 0.01 level.

Table-2:
Analysis of Variance of Emotional Intelligence and Academic Achievement among Students in Different Categories of Schools at the Higher Secondary Level

Variable	Source of Variation	*df*	Sum of Square	Mean of Sum of Square	*F*-ratio
Emotional Intelligence	Between groups	2	409001.85	204500.92	941.79**
	Within groups	318	69050.46	217.140	
	Total	320	478052.35		
Academic Achievement	Between groups	2	2048.55	1024.28	4.94**
	Within groups	318	65910.63	207.27	
	Total	320	67959.18		

**Significant at 0.01 level

In Table-2, for the analysis of variance different categories of schools are treated as different groups. The *F*-ratios are 941.79 and 4.94 for emotional intelligence and academic

achievement respectively, which are significant at 0.01 level. Thus, there is a significant difference in emotional intelligence and academic achievement among students in different categories of schools at the higher secondary level.

Inorder to establish the actual degree of difference between the students belonging to different categories of schools, namely, state, matriculation and central board schools, critical ratios were worked out and the actual difference between the mean scores were established. The tables presented below thus indicate the mean difference between the students in the different categories of schools at the higher secondary level.

Table-3:

Statistical Analysis of Means of Emotional Intelligence and Academic Achievement Among Students In State, Matriculation and Central Board Schools At The Higher Secondary Level

Variable	Category of Schools	Sample Size	Mean	SD	SEM	SED	CR
Emotional Intelligence	State Board	106	62.80	15.61	1.52	2.04	21.52**
	Matriculation Board	110	106.78	14.42	1.38		
	State Board	106	62.80	15.61	1.52	2.05	42.93**
	Central Board	105	150.86	14.14	1.38		
	Matriculation Board	110	106.78	14.42	1.38	1.95	22.62**
	Central Board	105	150.86	14.14	1.38		
Academic Achievement	State Board	106	59.58	13.74	1.33	1.92	1.97*
	Matriculation Board	110	63.35	14.47	1.38		
	State Board	106	59.58	13.74	1.33	1.98	3.12**
	Central Board	105	65.75	14.96	1.46		
	Matriculation Board	110	63.35	14.47	1.38	2.01	1.20^{NS}
	Central Board	105	65.75	14.96	1.46		

**Significant at 0.01 level

In Table-3 it is evident that the matriculation school students are better in their emotional intelligence when compared to the state board school students; the central board school students are better in their emotional intelligence when compared to the state board school students; the central board school students are better in their emotional intelligence when compared to the matriculation board students at the higher secondary level.

In the above table (Table-3) it is also seen that the matriculation school students are better in their academic achievement when compared to the state board school students; the central board school students are better in their academic achievement when compared to the state board students; the central board school students are similar in their academic achievement when compared to the matriculation board students at the higher secondary level.

Summary and Conclusion

We are at the beginning of a new century, and intelligence and success are not viewed the same way they were viewed before. New theories of intelligence have been introduced and are gradually replacing the traditional theory. The whole child/student has become the center of concern, not only his reasoning capacities, but also his creativity, emotions, and interpersonal skills. The Multiple Intelligences theory has been introduced by Gardner (1983) and the Emotional Intelligence theory by Mayer and Salovey (1990) then Goleman (1995). Intelligence quotient alone is no more the only measure for success, emotional intelligence,

social intelligence and luck also play a big role in a person's success (Goleman, 1995). Emotional intelligence is being able to monitor our own and others' feelings and emotions, to discriminate among them, and to use this to guide our thinking and actions (Salovey and Mayer, 1990). The emotionally intelligent person is skilled in four areas, Identifying, using, understanding, and regulating emotions (Mayer and Salovey, 1993). Since emotional intelligence is a master aptitude, a capacity that profoundly affects all other abilities, either facilitating or interfering with them (Goleman, 1985), the need is felt to investigate the emotional intelligence and academic achievement among students.

In the present investigation it is found that the students studying in different categories of schools following different systems of education, namely, the state, matriculation and the central board schools are found to differ significantly with respect to emotional intelligence and academic achievement. The central board students are significantly better in their emotional intelligence and academic achievement when compared to their counterparts in state and matriculation board schools at the higher secondary level. The matriculation board students at the higher secondary level are significantly better in emotional intelligence and academic achievement than their counterparts in state board schools, but are significantly lower when compared to the students in state board schools. The students at the higher secondary level in matriculation and central board schools have better infrastructure facilities at schools, like, well equipped laboratories, adequate library facilities resource centers, play equipments and their curriculum is also a very challenging one that requires total commitment from the part of teachers and the management. The support extended from the parents, facilities at home and the home environment with is very conducive for students in both, matriculation and central board schools than when compared to their counterparts in state board schools at the higher secondary level. These factors contributed significantly towards the better development of emotional intelligence and academic achievement of the students in matriculation and central board school students.

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