LINKAGES BETWEEN EMOTIONAL INTELLIGENCE AND ACADEMIC PERFORMANCE

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Abstract

Various stakeholders like teachers, parents, institutions and society, in general are concerned about how to enhance academic standards and academic achievement in the best possible manner. This is owing to the fact that educational attainment is rudimentary to the realization of technological and scientific development, political and socio-economic advancement, and success in life. Therefore, there is a need to identify factors which are relevant in attaining high academic goals. Sizeable amount of research has evolved to identify factors promoting academic success. Initiallythe research efforts laid emphasis on cognitive ability. Because cognitive factors like IQ were unable to explain substantial variability in academic achievement therefore, researchers began to identify a broader range of potential predictors like socioeconomic factors, peer relationships etc. that could account for that variability in academic success which remained unexplained by cognitive factors. One field that has attracted a lot of attention is the effect of Emotional Intelligenceon educational success. This paper aims to present the possible theoretical linkages through which emotional intelligence might exert an influence on academic performance. Also, the extant literature examining the relationship between the two constructs empirically will be reviewed to identify the nature of association with the hope of stimulating more systematic research efforts in future. Secondary data from various sources like books, surveys, thesis and other researches will be used. Additionally, testable propositions are formulated. Theoretical as well as practical implications pertaining to this association shall be discussed. Lack of empirical justification is duly acknowledged as a limitation of the paper.

Keywords: Emotional Intelligence, Academic Performance

Introduction

In today times, it is very important for students to be academically prepared so that they can strive well for jobs based upon knowledge. This is becauseif students are not qualified enough, then it can lead to extremely high costs to the individuals (like poor mental health, antisocial behavior, poor quality of life) and society (like increased health problems, higher unemployment rates, lower level of earnings). There are a variety of studies that have shown how academic achievement, as assessed using the GPA (Grade Point Average) is associated with various domains of well-being and life success. Strong associations have been reported between high GPA and increased academic attainment, rates of employment and job success(Battin-Pearson et al., 2000; Bowlby & McMullen, 2002). To the contrary, there are studies that have found relationships between low GPA and suicide risk (Hacker, Suglia, Fried. Rappaport, & Cabral, 2006), and poor adult outcomes in general (Roisman, Masten, Coatsworth, &Tellegen, 2004).Since, academic achievement has been found to be associated with these negative and positive consequences, it is crucial to gaincomprehensive understanding of the factors that impact academic success.

A sizeable amount of literature has been generated to study the academic success in schools and university settings. However, much of the early works in educational settings focused specifically upon standardized measures of cognitive abilities and how previous school marks impact university performance. Since,the proportion of variability in GPA that these factors could account for was comparatively little, the predictive utility of these researches has remained quite restricted (Mayer &Salovey, 1997). With so much of the variability still remaining unexplained, researchers began to explore a diverse range of other factors that could possibly predict academic performance. To list a few, variables like employment status, socioeconomic factors, peer relationships, full or part time attendance, family obligations, financial concerns, gender, distance from hometown etc. have attracted considerable research interest.

One field that has attracted a lot of attention is the effect of emotional and social capabilities on educational success. Early debates in different educational contextsasserted that there is strong relationship between EI and academic success (Goleman, 1995). However, there were many writers whoclaimed that these assertions were based upondata in its initial stage (Matthews,

Roberts, &Zeidner, 2003) and hence the efficacy of intervention programs for EI developed by educators was little known.

More recently, there is emergence of a small body of research suggesting that the idea ofEIbeingrelated to academic performance warrants further research.What is needed now is due attention on the methodology for measuring EI and academic performance.Achievement in educational settings demands sustained efforts, self-regulated learning practices, management of time in addition to effective management of stress. Thus, EI is one such construct that has been theorized to impact performance in educational settings through these social pathways.

Objectives

The purpose of this article is to review the recent literature on emotional intelligence as predictor of academic performance. Our review is organized into several major sections. The construct of EI is first discussed. This is followed by a discussion on the rationales for predicting academic performance based upon EI. Finally, a review of the current status of the relevant empirical literature is reviewed. The specific objectives that this paper aims to achieve are as under:

1. To understand the meaning of the construct "emotional intelligence".
2. To set out the theoretical arguments on how emotional intelligence is linked with academic success.
3. To review extant literature examining the empirical relationship between emotional intelligence and academic performance.

Review of Literature

Conceptual Framework of Emotional Intelligence

What is Emotional Intelligence (EI)? Unfortunately, there is no straightforward answer to this question, sincethere exist lot of definitions of EI. The distal roots of emotional intelligence lie in the concept of 'social intelligence'. This term was coined by E.L. Thorndike (1920). It referred to an individual's ability to apprehend and cope up with people and act sensibly in human relationships. The proximal roots of EIlies in the concepts of interpersonal and intrapersonal intelligence given by Gardener (1983).

It was only in 1990 that the term Emotional Intelligence was coined for the first time by psychologists Peter Salovey and John Mayor who defined it as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (Mayor &Salovey, 1990, p.189). Later on, Mayer and Salovey (1997) revised their initial model to include four distinct mental abilities: (a) perceiving emotions, (b) using emotions in facilitation of thought, (c) understanding emotions, and (d) managing emotions. All these four abilities are inter-related. These can be arranged in a hierarchical manner such that basic psychological processes are at the lower end of the pyramid where as the advanced psychological processes are at the pyramid top.

Researchers and general public were unaware of the construct "emotional intelligence" until it was propelled into prominence by Goleman's best selling book, Emotional Intelligence: Why it can matter more than IQ (Goleman, 1995).It grabbed the attention of media persons, general public, and researchers. He defined EIas a set of "abilities such as being able to motivate oneself and persist in the face of frustrations, to control impulse and delay gratification to regulate one's moods and keep distress from swamping the ability to think, to empathize and to hope" (Goleman, 1995).He described EI as a range of competencies and skills encompassed in five main areas: self-awareness, social skill, self-regulation, empathy and motivation (Goleman, 1998).

Reuven Bar-On is another influential name in the field of EI. According to him, EI refers to "an array of non-cognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures" (Bar-On, 1997, p. 14). As per him, EI consists of five relatedabilities: intrapersonal skills (being able to identify and understand one's own feelings), interpersonal skills (being able to demonstrate empathy), stress management (being able to resist an impulse or delay a gratification), general mood and adaptability (being able to modify one's emotions in line with the changing conditions) (Bar-On, 1997). The three models of EI are shown Figure 1.

More recently, Petrides and Furnham (2000a, 2000b) proposed a clear distinction between two types of EI, i.e. ability EI and trait EI. Trait EI, also termed as emotional self-efficacy, refers to constellation of behavioral dispositions and self-perceptions regarding one's

Emotional Intelligence		
Mayor and Salovey model	Goleman model	Bar-On model
Recognizing emotions	Emotional self-awareness	Intrapersonal skills
Utilizing emotions	Self-regulation	Interpersonal skills
Understanding emotions	Motivation	Adaptability
Managing emotions	Empathy	Stress Management
	Social skills	General Mood

Figure1. Models of emotional intelligence

ability to perceive, process and make use of emotion laden information. Trait EI includes various dispositions from the domain of personality (empathy, impulsivity, and assertiveness) as well as some elements of personal intelligence (Gardener, 1983) and social intelligence (Thorndike, 1920), the latter two in the form of self-perceived abilities. Since trait EI pertains to realm of personality, it is measured through self-report questionnaire. Ability EI, also termed as cognitive-emotional ability, refers to one's actual ability to perceive, process and make use of emotion laden information. Ability EI belongs to the realm of cognitive ability. It is assessed using maximum-performance tests. This distinction is very important as it has a bearing on how the construct will be operationalized. It will also impact the development of theories and hypothesis about the construct.

Theoretical Framework for association between academic performance and Emotional Intelligence

Upon inspection of content domain of EI, it was found that there are many theoretical pathways which bridge the gap between individual differences in emotional ability and academic achievement.There is lot of ambiguity in the literature linking EI with academic performance resulting from these vaguely defined theoretical pathways. Therefore, a need is felt that the

manner in which emotional intelligence contributes in educational settings should be re-examined in terms of the theoretical mechanisms.

One possible explanation for the contribution made by emotional intelligence in academic performance can be explained in terms of neuroticism.There is a lot of literature which has demonstrated negative correlation between neuroticism and academic performance. This negative correlation is the result of detrimental impact of stress and worry typically witnessed in educational settings (O'Connor &Paunonen, 2007; Petrides, Chamorro-Premuzic, Frederickson, &Furnham, 2005). Since, higher level of neuroticism can predispose a student to experience detrimental emotions when exposed to a stressful stimuli, he/she is more likely to experience stress and anxiety in academic assessment settings. This predisposition towards negative emotions hinders concentration to academic activities. Interestingly, individuals high on emotional intelligence often make use of cognitive reappraisal to regulate their emotions and hence there is little chance of getting affected by emotions which could deteriorate their performance academically. Rather, this ability to regulate emotions in turn improves their performance (Goetz, Frenzel, Pekrun, & Hall, 2005).

Another reason why which emotional intelligence exerts positive impact on academic performance is that it facilitates interactions in collaborative educational environment. Often, achievement in educational environment is not just limited to performing in various tests and examinations but it also requires collaborative work like projects, group tasks etc. (Ahles& Bosworth, 2004). Individuals high on emotional intelligence are expected to demonstrate interaction with peers and prosociality. High EI students are expected to have stable tendencies towards perceiving, understanding and expressing emotions, thereby promoting greater cooperation, interaction and exchange of emotion-based information in collaborative academic tasks. Therefore, such students are conferred a selective advantage by their high EI in adjusting to the dynamics of social collaborations, promoting better academic performance in group settings.

The contribution of EI in enhancing academic performance can also be explained in terms of "w" factor. This term was first conceptualized in the twentieth century by Webb (1915). In academic settings, performance is not just dependent on an individual's capability to perform but also on one's willingness to perform (Mouw& Khanna, 1993). Individuals scoring high on emotional intelligence are goal oriented, achievement striving, determined and persevering which leads

them to set academic goals and then committing resources to those academic goals. This engagement in achievement goal setting and the willingness to expend sustained and directed efforts to these set goals is what allows students with higher EI to perform better academically. Rode et al. (2007) stated two reasons that might explain how EI relates to academic performance. Firstly, a lot of uncertainty and ambiguity exists in academic tasks which can possibly lead to felt anxiety. It is expected of students to handle multiple assignments, work independently towards goals, adapt to different instructor expectations, and prioritize the conflicting demands placed by academic and non-academic goals. Also, there arefewfacets of academic environment that are particularly stressful like taking exams. Therefore, the ability to manage emotions as needed in times of stress i.e. being able to connect or disconnect from an emotional stimuli can lead to better performance academically. Secondly, academic endeavors require self-management and are largely self-directed. Individuals with higher level of emotional intelligence have the ability to direct their positive emotions for a longer period of time and this energy so upheld leads to improved performance. Also, they are able to surpass the very source of detrimental emotions by redirecting them into productive behaviors. On the other hand, failure to understand relationships between various emotional states, and emotional meanings might lead to dysfunctional coping mechanisms like withdrawal and avoidance coping (Lazarus &Folkman, 1984). Such strategies might have negative implications for pursuits involving self-direction. This is particularly true for educational settings where it can possibly lead to deterioration of academic performance.

To summarize, the manner in which emotional intelligence is associated with academic achievement has been well supported by several compelling theoretical rationales. Based on the theoretical considerations, EI is expected to demonstrate positive correlation withperformancein academic settings.

Empirical Framework for relationship between EI and academic achievement

There has been emergence of a small body of research which has demonstrated correlations between emotional intelligence and performance in academic context. Parker et al. (2004) conducted a longitudinal study and they found that several dimensions of EI could predict academic success. This was particularly true for students who were transitioning from school to university. A large sample of Ist year full time students completed the EQ-i:Short (EQ-i:Short; Bar-On, 2002) in the beginning of the term. The scores onEQ-i:Shortwerecorrelated with

academic records of the students at the end of the academic year. Academically successful group scoring GPA of 80% or better scored higher on various components of emotional intelligence (stress management,intrapersonal abilities, and adaptability) as compared to the less successful group scoring GPA of 59% or lower. It was suggested that those students who scored high on EI had better ability to cope up with emotional and social requirements of transitioning to post-secondary environment. Parker et al. (2004) conducted a similar study where they investigated how EI might relate to academic achievement amongst a group of high school students. It was seen that overall EI significantly predicted academic success. The magnitude of correlation was more than what was reported by Parker et al., (2004). The students who were classified as successful scored higher on stress management, adaptability and interpersonal abilities. The two studies reported consistent results for adaptability and stress management dimensions but the results for intrapersonal and interpersonal abilities were different. The discrepancy in such findings were due to the fact that the contribution of peer group in a student's life changes while he is making transition from late adolescence to young adulthood and in addition, due to developmental changes in the level of emotional understanding. Another study found that low scores on EI which is linked to alexithymia resulted in low level of academic achievement in first year students.The effect size was similar to that of entry qualifications (Parker, Austin, Hogan, Wood, & Bond, 2005).

Petrides, Frederickson, and Furnham (2004) examined the relationship between emotional intelligence, cognitive ability, and academic performance. The study was conducted in a sample of British students enrolled in Grade 11. Standardized test results from the GCSE were used to operationalize academic success. They found that EI moderated the relationship between cognitive ability and academic performance. It was also found that there was negative correlation betweenemotional intelligence and deviant behaviors, getting expelled from school, and unauthorized absences which are likely to influence academic performance indirectly.

Schutte et al. (1998) conducted a longitudinal study to test whether emotional intelligence could predict college students' academic success in their first year of study. When emotional intelligence measure completed during the first month at university was matched with students' cumulative grade point averages at the end of year, they found that scores on EIsignificantly related toacademic success of students. A longitudinal study was carried out by Costa and Faria (2015) amongst students in a Portuguese secondary school. The objective was to investigate the

predictive utility of EI with respect to students' academic performance. They found that both types of EI measures (self –report and performance based) were able to predict students' GPA, Portuguese and Mathematics grades. Interestingly, it was seen that performance based measure exhibited greater power in predicting the outcome variable as compared to self-report measure.

Downey et al. (2008) conducted a study on Australian adolescents. The objective was to examinehow emotional intelligence might relate to scholastic achievement. They found that success in academics was associated with higher levels of total emotional intelligence when assessed using three different academic levels (20th percentile, middle group and 80th percentile).Jaeger (2003) found that there was positive correlation between emotional intelligence and academic performance in a study of post graduate students. It was suggested that students who were attuned to their feelings and emotions could better adapt to emotionally driven situations and thereby more likely to attain higher level of academic performance. The study also highlighted a critical finding that it is possible to enhance EI with the help of instruction in a classroom setting.

Barchard (2003) in his study found significant correlations between some of EI subscales and measure of exam performance. The study was conducted with conducted with a group of upper division students. However, he found that EI measures failed to exhibit incremental validity in predicting academic success over and above cognitive ability and personality. However, a study was conducted in Spain wherein EI demonstrated incremental validity in the prediction of grades. The sample consisted of high school students who were assessed usingMSCEIT in the year beginning. At the year end, scores on MSCEIT were found to correlate with final grades even after controlling for both academic intelligence and personality (Gil-Olarte et al., 2006). In another study, the role of fluid intelligence, personality and EI in prediction of academic success was examined. The EI dimension of Emotion Management and Control was found to explain a significant proportion of variability in grade point average even after controlling for IQ and personality (Downey et al., 2014). Fabio and Palazzeschi (2009) found that emotional intelligence, both self-reported and ability based, added a percentage of incremental variance in explaining scholastic success over and above fluid intelligence and personality variables. Moreover, the ability based measure accounted for a higherproportion of incremental variance as compared to self-reported measure.

A study was conducted by Rozell, Pettijohn, and Parker (2002) in which they found that there was a small but significant correlation between EI and academic achievement. Academic achievement, as assessed using GPA was found to correlate with 3 out of 5 dimensions within the EI scale used. Austin et al., (2005) found limited evidence to show that emotional intelligence might be associated with academic performance in a batch of first year medical students. The ability of EI to predict academic performance was limited to only the autumn exam. Also, the relationship was found for only one course component i.e. Health and Society.

There is a lot of research that failed to find any association between EI and academic performance. Newsome, Day, and Catano (2000) examined 180 first year students attending a psychology course. They found very little association between emotional intelligence and academic success when they used the 133-item Bar-On Emotional Quotient Inventory (EQ-i; Bar-On, 1997). The age range of students was 17 to 56 years, students in part-time and full-time courses were clubbed together and so were students from different years of study (first, second, third and fourth year students were all grouped together). O'Connor and Little (2003) used both self-report and ability-based measures of EI in order to examine how emotional intelligence might relate to academic achievement in university students. Academic achievement was operationalized as the respondents' cumulative GPA. Regardless of the type of measure used, EI was not found to be a significant predictor of academic achievement. Bastian, Burns, and Nettlebeck (2005)in their study foundthat EI was related to a large number of life skills including life satisfaction, anxiety, coping ability, and academic achievement. 246 first year students from a university in Australia participated in the study who were asked to complete three measures of emotional intelligence. The results indicated statistically non-significant correlation between emotional intelligence and academic achievement.

The inconsistency in the findings ofongoing research on the association between academic performance and emotional and social competencies can be attributed to a number of methodological problems. The research so far has more or less focused upon a narrow range of abilities or it measured academic success over narrow time-lines. Even though Newsome et al. (2000) assessed a broader range of emotional abilities, the interpretability of the data might have been compromised since young and mature students, part and full time students, and students at different stages of transition process were combined into a common data set. Students at

different stages experience very unique stressors and challenges while they try to cope up with their academic careers.

Implications

The opinions regarding the impact of emotional intelligence in educational context has many connotations for both literature on emotional intelligence as well as educational practice. Elucidating the contribution made by EI in a student's academic performance might enhance our understanding of how can affective qualities contribute towards the achievement of academic goals. Once the contribution of emotional intelligence in educational success gets clarified, testable hypothesis can be generated and assessed to identify the causal ordering in the relationship between the two variables. This is necessary from a theoretical point of view.

In practice, differing views regarding the relationship between EI and academic performance might give some indications on decision regarding how much efforts, time and resources should be assigned in order to ensure the success of interventions. If the results demonstrating strong associations between emotional intelligence and academic performance are reliable and replicable, then it highlights the importance of designing and implementing an EI development program for students. The success of intervention schemes will be dependent upon increased precision in targeting emotionally vulnerable individuals. Various EI measures can be utilized by educators to identify students who have lower levels of EI and are at risk of drop outs so that special attention can be given in enhancing their emotional skills. Educators and specialists working in the field of emotional intelligence should work together in building a framework targeting enhancement of those emotional traits and skills that have been repeatedly highlighted by research as positively influencing academic performance. Perhaps the inclusion of emotional intelligence measures in intervention programs and assessment studies aimed at behavior of students might be fruitful not just for basic research but also for social policy.

The studies demonstrating positive associations between EI and academic achievement provide valuable information to educators seeking to introduce emotional competencies into the curriculum. The inclusion of emotional intelligence in the academic curriculum might add to a variety of positive personal, and societal outcomes. It may not just facilitate the learning process but could also enhance the possibility of better personal and social adaptation in general. It is

well general belief now success in educational contexts can be predicted based on one's emotional abilities. Yet, lot of emphasis is placed upon cognitive ability in admissions criteria and performance assessment, even when it predicts only a portion of academic success. In cognitively demanding careers and in graduate programs, the admission procedure focuses specifically on IQ, even when emotional intelligence carries more weightage in prediction of success and who emerges as a leader (Goleman, 1998). Hence, it is crucial to incorporate the construct of emotional intelligence in the admission criteria. Practitioners in the field of career counseling may benefit from considering the contribution of emotional intelligence in helping students with deciding amongst various career options and helping them deal with issues related academic engagement.

Limitations

The conceptual bridge between emotional intelligence and academic performance that has been presented in this paper may enlighten educational institutions with respect to those affect related attributes that might be predictive of students' future academic performance. However, the theoretical linkages posited between EI and performance in academic domain presented in this paper are clearly speculative in nature. What is needed now is empirical research which tests the ideas presented in this paper. Also, taking into account the mixed nature of already existing empirical work on how EI contributes to achievement in academics, further replication of the results is needed.

Conclusion

Over the past decade, popular media and researchers in various areas have demonstrated rapidly growing interest in emotional intelligence. The review of various studies yielded evidences of modest-to-moderate validity of emotional intelligence in prediction of academic performance. The current paper relied on the review of literature to analyze the research on emotional intelligence and academic achievement. Studies generally took a more in-depth look on the relationship between different dimensions of EI and academic performance. The majority of papers suggested a significant relationship between overall EI and academic achievement. Other papers found significant associations with various sub-components of emotional intelligence.

Some papers proposed to weigh the influence of EI on academic performance after taking into account cognitive ability and personality. The literature reviewed indicated that academic achievement was generally assessed using GPA, for different academic disciplines and for different periods of time.In order to assess EI, widely used methods were utilized, self-report measures being preferred by majority of studies over maximum performance tests. Also, the influence of various demographic characteristics on the linkages between EIand academic performances was also investigated in many papers reviewed. Though significant associations of EI have been found in with academic performance in lot of studies, but still we have a very inadequate grasp of the role of EI in achievement of superior academic goals. This paper was an attempt to set out a few theoretical pathways linking the two variables in order to obtain a comprehensive grip of the effects of emotional intelligence in educational settings. There is a need to examine theoretical constructs across distinct achievement settings.Hopefully, current review might provide researchers with some guidance in this regard.

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