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The correlation of Personality Traits and Academic performance: A review of literature

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Abstract: *The early researches on the relationship between personality and academic performance have aroused ambiguous conclusions, mainly because of the different theoretical bases and due to the use of variable research methodologies by the researchers. The acceptance of Factorial Models of personality and the new techniques in research has made the exploration of the correlation of personality traits and academic achievement easy. The Five Factor Model brought order to the previous "chaotic plethora" of personality measures. The present paper reviews the studies conducted using Five Factor Model of personality and explains the correlation between dimensions of personality and academic performance which in turn would help in selection of suitable candidates for higher studies and decrease "Drop Out" rate in colleges and universities.*
Keywords: *Personality traits, Academic performance, Five Factor Model.*

I. Introduction

Personality refers to individual differences in characteristic patterns of thinking, feeling and behaving. The study of personality focuses on two broad areas: One understands individual differences in particular personality characteristics, such as sociability or irritability. The other understands how the various parts of a person come together as a whole (American Psychological Association, APA). Personality traits are the consistent traits of an individual which make him different from other individuals. The blend of personality traits is also important in predicting success in various domains. The Five-Factor Model (FFM) of personality is one of the prominent models in contemporary psychology and defines personality in terms of five broad factors, namely, Neuroticism, Extraversion, and Openness to Experience, Agreeableness, and Conscientiousness. According to (McCrae and Costa ,1990) "The Five Factor Model (FFM) is an organization of personality traits, and traits in turn are dimensions of individual differences in tendencies to show consistent patterns of thoughts, feelings, and actions". McCrae (2001) further defines traits as "endogenous basic tendencies that, within a cultural context, give rise to habits, attitudes, skills, beliefs, and other characteristic adaptations". Thus traits are relatively stable or enduring individual differences in thoughts, feelings and behaviors (Church, 2000). Neuroticism is defined as a general tendency to experience negative effects such as fear, sadness, embarrassment, anger, guilt, and distrust. It is the degree to which a person is calm and self-confident as opposed to anxious and insecure. Extraversion is regarded as a general tendency toward sociability, assertiveness, activeness and being talkative. Thus it is the degree to which a person is sociable, leader like and assertive as opposed to withdrawn, quiet and reserved. Individuals willing to entertain novel ideas and unconventional values are described by the openness to experience trait. Openness to Experience is defined as the degree to which a person is imaginative and curious as opposed to concrete minded and narrow thinking. Agreeableness encapsulates constructs of sympathy, cooperativeness, and helpfulness towards others. It is described as the degree to which a person is good natured, warm and co-operative as opposed to irritable, uncooperative, inflexible, unpleasant and disagreeable. The final factor, Conscientiousness, may be described as the degree to which a person is persevering, responsible and organized as opposed to lazy, irresponsible, and impulsive. This dimension summarizes the more specific traits that mark careful, responsible and dependable people in contrast to people who are lazy and lack self-discipline (Costa & McCrae, 1992; McCrae, et al, 1998; Rolland, 2002). Academic achievement or (academic) performance is the outcome of education — the extent to which a student, teacher or institution has achieved their educational goals. Academic achievement is commonly measured by examinations or continuous assessment but there is no general agreement on how it is best tested or which aspects are most important — procedural knowledge such as skills or declarative knowledge such as facts(Ward,1996). Researchers have been constantly doing research to find out parsimonious set of variables to establish relationship between personality and academic performance. Personality has been recognized as a determining factor on how people learn (Lawrence, 1997; Myer et al, 1998). College students tend to prefer learning environments consistent with their own personality type preference. Many scholars have accepted five-factor model of personality as a replicable and unifying taxonomy of personality (Digman, 1990; Goldberg, 1992; Witt et al, 2002) and have found personality traits to be significantly related to successful job and school performance, both logically and statistically (Hogan & Hogan, 1989; Day & Silverman, 1989).

II. Brief History of researches done on personality and academic achievement

One of the earliest applications of trait-based personality assessment was the prediction of academic performance. (Webb, 1915) proposed the existence of a construct he labeled *w*, representing a *will* factor, which (Spearman, 1927) later argued sat alongside the general intelligence factor *g* as a contributor to academic ability. Consistent with this, research by Webb and others (Flemming, 1932) found that personality measures were correlated with academic performance. Unfortunately, early research was beset by inconsistent research findings and methodological problems. In one of the earliest reviews of the field, (Harris, 1940) expressed the view that personality contributed to academic performance, but acknowledged that this was unsupported by evidence because research up to that point was marred by inconsistent and flawed methodologies. Later, (Stein, 1963) emphasized the difficulty of making sense of research based on diverse theories and measures, while (Margrain, 1978) noted much creativity in methodology, but findings that showed no clear trends. The next major review of the field (De Raad, & Schouwenburg, 1996) still highlighted the scattered nature of this research and its lack of an overarching framework or paradigm, while (Farsides and Woodfield, 2003) concluded that findings had been "erratic". In brief, reviews of research on the relationship between personality and academic performance have generally presented equivocal conclusions, largely due to the use of variable research methodologies and theoretical bases.

Just as with academic performance, early research on links between personality and work performance found variable results, leading to the conclusion that general dimensions of personality were largely unrelated to work performance (Guion & Gottier, 1965). Two methodological advances helped reverse that conclusion: the advent of meta-analytical techniques for effectively combining results from previous research (Hunter, Schmidt, & Jackson, 1982) and the growing acceptance of broad factorial models of personality, which provided a framework for comparing personality studies. In particular, the Five-Factor Model (FFM) of personality, which is made up of the dimensions of Agreeableness (reflecting likeability and friendliness), Conscientiousness (dependability and will-to-achieve), Emotional Stability (adjustment versus anxiety), Extraversion (activity and sociability), and Openness (imaginativeness, broad-mindedness and artistic sensibility), has been important in this regard. The value of the FFM is that it encompasses most of the variance in personality description in a simple set of dimensions, thus bringing order to the previous "chaotic plethora" of personality measures (Funder, 2001). Barrick and Mount (1991) used the FFM to organize their meta-analysis, thus providing one of the first broad-ranging estimates of the relationship between personality and work performance.

III. Why should we relate Personality with Academic Performance?

It is important to consider why personality should be expected to be correlated with academic performance when most measures of personality, including the Five Factor Model, were not designed to predict academic performance (Ackerman & Heggestad, 1997). The idea that intelligence, socioeconomic status and personality each affect socially-valued behaviors is consistent with the proposal that performance in both work and academic settings is determined by factors relating to capacity to perform, opportunity to perform and willingness to perform (Blumberg & Pringle, 1982; Traag, van der Valk, van der Velden, de Vries, & Wolbers, 2005). Capacity incorporates knowledge, skills and intelligence; opportunity to perform is affected by environmental constraints and resources, including socioeconomic resources (Traag et al., 2005); while willingness to perform reflects motivation, cultural norms and personality (Blumberg & Pringle, 1982). Factors associated with willingness to perform, such as attendance, initiative, involvement in non-academic activities, and attitudes to study, have been shown to provide additional prediction of academic performance beyond that provided by mental ability (Willingham, Pollack, & Lewis, 2002). With respect to willingness to perform, the dimensions of the Five Factor Model may contribute directly but have been indirectly linked through their associations with motivation. Personality and academic performance may be associated due to common links with intelligence. Consistent with this, Chamorro-Premuzic and Furnham (2006) argued that correlations between academic performance and personality measures would mirror corresponding correlations of intelligence with personality. The measures of personality based on the Five Factor Model should be correlated with academic performance relate to the evidence supporting the importance of personality factors for predicting socially valued behaviors and on the recognition of personality as a component of an individual's willingness to perform. At the same time, intelligence should be considered in order to adequately assess these relationships.

IV. Correlation between Five factor Model Dimensions and Academic Performance

De Raad and Schouwenburg (1996) argued that Agreeableness may have some positive impact on academic performance by facilitating cooperation with learning processes. This is consistent with later research that found Agreeableness was linked to compliance with teacher instructions, effort and staying focused on learning tasks (Vermetten, Lodewijks, & Vermunt, 2001). Conscientiousness as the Five Factor Model dimension most closely linked to will to achieve (Digman, 1989)— the *w* factor described by Webb (1915)— has often been linked to academic performance (De Raad & Schouwenburg, 1996). This factor is associated

with sustained effort and goal-setting (Barrick, Mount, & Strauss, 1993), both of which contribute to academic success (Steel, 2007), as well as compliance with and concentration on homework (Trautwein, Ludtke, Schnyder, & Niggli, 2006), and learning-related time management and effort regulation (Bidjerano & Dai, 2007). People who are low on Emotional Stability are more anxious and tend to focus on their emotional state and self-talk, thus interfering with attention to academic tasks, thereby reducing performance (De Raad & Schouwenburg, 1996). More positively, Emotional Stability is associated with self-efficacy (Judge & Bono, 2002), which is positively correlated with academic performance (Robbins et al., 2004), indicating that Emotional Stability should similarly be correlated. De Raad and Schouwenburg (1996) argued that students who are high on Extraversion will perform better academically because of higher energy levels, along with a positive attitude leading to a desire to learn and understand. On the other hand, they cited Eysenck (1992) who suggested that these same students would be more likely to socialize and pursue other activities rather than studying, leading to lower levels of performance. Unfortunately, it is not clear from De Raad and Schouwenburg which of these effects is more likely to affect academic performance. Finally, De Raad and Schouwenburg (1996) stated that Openness appears to reflect "the ideal student" (p. 327), because of its association with being foresighted, intelligent and resourceful. Correspondingly, Openness is positively correlated with approach to learning (Vermetten, et al., 2001), learning motivation (Tempelaar, Gijselaers, van der Loeff, & Nijhuis, 2007) and critical thinking (Bidjerano & Dai, 2007), but it also has the strongest negative correlation with absenteeism (Lounsbury, Steel, Loveland, & Gibson, 2004) of the Five Factor Model factors.

V. Conclusion

The present review indicates the prominent role of personality traits with respect to academic performance that gives answer to the question why some individuals are academically inclined and others are not in spite having same intelligence level. It shows that the optimistic view of early researchers was correct that personality has its relation with academic performance; it is not a mere assistant of intelligence in determining the academic performance. The *w* (will factor) means the willingness of an individual to perform is equally important in determining academic achievement and it is as important as *g* (general factor) of intelligence. The most related personality trait Conscientiousness is the key factor in predicting the performance of an individual. The research conducted so far statistically support the correlation and yet there are many key factors to be explored for establishing for direct relationship.

VI. Implications

The present review focuses that personality and intelligence both are equally important in predicting academic performance. Personality testing at the time of admission may help to keep a check on the rate of "Drop Outs" and as well as assess the motivational level of students towards the higher education.

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