Relationship of Extroversion Dimension with Academic Performance of Medical Students

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ABSTRACT

Most people know that academic performance generally refers to how well a student is accomplishing his or her tasks and studies, but there are quite a number of factors that determine the level and quality of students' academic performance. Certainly the most well-known indicator of academic performance, grades is the student's "score" for their classes and overall tenure. Grades are most often a tallying or average of assignment and test scores and may often be affected by factors such as attendance and instructor opinion of the student as well. Grading systems vary greatly by country and school; common scales include a percentage from 1-100, lettering systems from A-F, and grade point averages (GPA) from 0-4.0 or above. Academic Performance of medical school students is predisposed by personality dimension extroversion has been concentrated in the present study. The main objective of the study was to determine the extroversion score among the medical students and find out the correlation between extroversion and their academic performance. Participants for this study were 70 Phase-I year 1Medical Students of USM-KLE International Medical Programme Belgaum, Karnataka, India. They were selected by purposive sampling technique. Eysanck personality Inventory was administered to find out the extroversion scores among the students and these scores were compared with academic grades. For this process Carl Pearson's Correlation coefficient method was carried out. The results reveal that there is no significant correlation between academic performance and extroversion ('t' Value 0.23 which is not Significant at 0.05 level of significance). Even though the personality factor extroversion has relation with the academic performance which many previous scientific researches show but the present study results of negative correlation nullifies the significance. The implication of this study was to develop an understanding and thoughtfulness among the medical students that the personality factors have an influence on their academic performance.

Keywords: *Academic Performance, Extroversion, Medical Students,*

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In what way people interact in a group varies greatly from one person to another. Some people are open and relaxed. They easily talk to others and enjoy social interaction and contributing in groups. Others are reserved and find it difficult to communicate in a group. Such individuals avoid contributing in social settings. These personality types are known as extroversion and introversion respectively. Individual academic performance may be greatly influenced by an individual's personality type.

Extraversion is characterized by positive emotions, surgency, and the tendency to seek out stimulation and the company of others. The trait is marked by pronounced engagement with the external world. Extraverts enjoy being with people, and are often perceived as full of energy. They tend to be enthusiastic, action-oriented individuals who are likely to say "Yes!" or "Let's go!" to opportunities for excitement. In groups they like to talk, assert themselves, and draw attention to themselves.

Extraversion indicates how outgoing and social a person is. A person who scores high in extraversion on a personality test is the life of the party. They enjoy being with people, participating in social gatherings, and are full of energy. A person low in extraversion is less outgoing and is more comfortable working by him-self.

Extraversion is perceived as socially desirable in Western culture, but it is not always an advantage. For example, extraverted youths are more likely to engage in delinquent behavior. Conversely, while introversion is perceived as less socially desirable, it is strongly associated with positive traits such as intelligence and "giftedness."

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 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.

Individual differences in academic performance have been linked to differences in intelligence and personality. Personality factors are also as an impact on academic performances one of the dimension extroversion has been studied to see its impact on academic performance in this study.

Extroversion and introversion are important aspects of personality and research work done by Anthony (1982), Riding (1979), Orpen (1976), Elliot (1972) and Finlayson (1970) have indicated a relationship between extroversion-introversion and academic performance.

To say in common a medical student must be more towards extroversion personality dimension as this personality trait is very important as in the Medical School more extroversion traits are encouraged. When the student is noticed more towards introversion he may not be encouraged much as the doctor must possess some of the qualities like have good communication skills, high

level of social interaction and doctors' carrier is like all the time interaction with different personalities of people during treatment and various several other activities.

One of the studies reveals that when Eysenck's Personality Inventory (E.P.I., 1964) was given to first-year students at the University College of Science Education, Cape Coast, Ghana. Their scores on this test were related to the only common academic measure among them—the intermediate examination in arts. Extraversion was found to be correlated significantly.

Assessment Tool
- *Eysanck Personality Inventory*
  A self-report personality inventory based on Hans Eysenck's factor analysis of personality which assumes three basic factors (the two most important being extraversion to introversion and neuroticism) was used for the study. The concurrent validity and reliability for the extroversion dimension were found to be .92 and .77 respectively (H.J.Eysanck, Sybill B.G. Eysanck 1980).
- Academic performance has been taken in grades and percentages to find out the correlation between academic performance and extroversion. Grading system used in present study is presented in the table below.

Table No. 1Grades and Percentages

Sl.No	Grade	Range of Marks Obtained
1	A+	75-100 (Pass)
2	A-	70-74.9 (Pass)
3	B+	65-69.9 (Pass)
4	B-	60-64.9 (Pass)
5	C+	55-59.9 (Pass)
6	C-	50-54.9 (Pass)
7	F+	45-49.9 (Fail)
8	F-	40-44.9 (Fail)
9	LF	30-39.9 (Fail)
10	LLF	0-29.9 (Fail)

METHODOLOGY

Aim
- To find out the extroversion and its effect on students' academic performance.

Objective
- To evaluate the extroversion in medical students
- To find out the relationship between extroversion and academic performance.

Hypothesis
- Students high on extroversion dimension of personality perform better academically than those who have less of extroversion dimension/trait of personality.

Sample

Eysenck initially hypothesized personality as two, biologically-based independent dimensions of temperament measured on a continuum:

1) Extraversion/Introversion
2) Neuroticism/Stability

Extraversion is "the act, state, or habit of being primarily concerned with and finding fulfillment from what is outside the self. In this study our focus is on this personality dimension of temperament extroversion. The sample for the present study has been chosen from USM-KLE International Medical Programme 2011-2012 (Phase-I, year 1 students) Belgaum, India. The sample study group includes 70 students. The age of the sample varies from 17-23 years. Among the sample group 49 are females and the 21 are male. Extroversion, also a Big Five personality trait, is defined as an enduring tendency to experience unpleasant emotions (e.g., anger, anxiety, and depression) easily.

STATISTICS AND DISCUSSION

Table No2: Showing score of Extroversion dimension of the Medical students

Sl.No	Extroversion	Score	Number of students	Percentage
	Degree			
1	Low	01-08	12	17
2	Medium	09-16	51	72.8
3	High	17-24	08	11.2
			70	100

Table No.2 Data shows the degree of Extroversion among the 70 students of Phase-I year 1 Medical students of USM-KLE data reveals that 17 percent of them are low on extroversion score between 01- 08. Table shows that 51 students fall under medium score of extroversion that is 09-16 that is 72.8 percent of the total sample and 08 of them are falling under high extroversion score that is 11.2 of the total sample.

Table No 3: Showing the Percentage and Grade in academic performance of students and level of Extroversion (Emotionality)

Sl. No	Grade	Range of Marks Obtained	Total No. of students with grades	Extroversion Scores
1	A+	75-100 (Pass)	03	06
2	A-	70-74.9 (Pass)	07	19
3	B+	65-69.9 (Pass)	16	16
4	B-	60-64.9 (Pass)	25	17
5	C+	55-59.9 (Pass)	09	07
6	C-	50-54.9 (Pass)	08	03
7	F+	45-49.9 (Fail)	01	01
8	F-	40-44.9 (Fail)	01	01
9	LF	30-39.9 (Fail)	00	00
10	LLF	0-29.9 (Fail)	00	00
			Total =70	**70**

Table No.3 shows among the 70 respondent students 03 are passed with the 'A+' grade who's academic scores are between 75 to 100 and 07 are passed with the 'A-" Grade who's academic score falls between 70 to 74.9 they show their extroversion score 06 and 19 respectively. Data further reveals students who scored 65 to 69.9 and 60 to 64.9 having the grade 'B+' and 'B-' respectively and show their extroversion score 16 and 17 respectively. Further data reveals respondents with the Grade on academic performance 'C+' and 'C-' who's score is 55 to 59.9 and 50 to 54.9 respectively and their extroversion scores shows 07 and three respectively. Two failures in the academic performance whose Grade is 'F+' and 'F-' whose score is 40 to 44.9 and 30 to 39.9 respectively. And their extroversion score also shows one each for the respondent.

One of the research studies reveals that Experimental studies have suggested that personality factors, in particular neuroticism and extraversion, are important determinants of academic performance. The Maudsley Personality Inventory was given to first-year university students over three years and scores on this were related to academic performance at the end of their first year. The results showed that this Australian university population had higher mean neuroticism and extraversion scores than the norms for the test. Analysis of variance and correlation techniques showed that high scores on both factors were negatively related to academic performance.

In the present study the personality dimension extroversion has been focused to find its relation with the academic performance and which has been made understood.

Table No.4 Showing the correlation between Academic Performance and Extroversion (n=70)

	Mean	Std. Dv	r-value	t-value	p-value
Academic Performance	66.23	6.74	-0.0279	0.2301	0.8187
Extroversion	12.45	3.50			

*p< 0.05 level of significance., **p< 0.01 level of significance., ***p< 0.001 level of significance.

Table No.4 shows mean score of 66.23 for academic performance and 12.45 for extroversion dimension and the obtained SD for academic performance is 6.74 and 3.50 for extroversion respectively, further Carl Pearson's Correlation coefficient method was carried out and the results reveal the 't' value of 0.27which is not significant at 0.05 level of significance. The extroversion is a dimension of personality which is characterized by concentration of interest on the external object therefore they focus in academic performance get affected and there should be deterioration in the academic performance. This empirical evidence has been supported in the study below.

Two of the famous psychologists, whose factor-analytic works contributed to the research on personality traits, intelligence, and academic performance, are R. B. Cattell and H. J. Eysenck. In this article, Cattell and Eysenck's findings, as well as those of other researchers of the field, will be discussed. Special attention will be given to the so-called "Big Five" personality traits (neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness), particularly the links between conscientiousness, extroversion (also one of Eysenck's three super-traits), neuroticism (also one of Eysenck's three super-traits) and academic performance (Goldberg, 1990; Ewen, 2010).

However, present study shows negative correlation between extroversion and academic performance. This may be due to the respondents' in the present study are more on medium level score on extroversion than that of high score. Some other studies support this fact that there is no significant relation between academic performance and extroversion has mentioned below.

This has been supportive study which also goes with the negative correlation between extroversion and academic performance. In this study the purpose was to investigate if a relationship exists between a preference for either introversion or extroversion and academic performance when compared between online and traditional business courses. The study used a cross-sectional survey methodology to determine a student's type preference and then explore possible causal relationships involving introverted or extroverted preferences and academic performance measured in either traditional or online business courses. This study attempted to determine if a preference for introversion or extroversion is associated with academic performance as determined by course grades between two separate groups of

students. Myer-Briggs Type Indicator (MBTI) was utilized to determine preferences for introversion and extroversion. Six hypotheses were addressed utilizing various statistical tests. The results obtained from the statistical tests completed found insufficient evidence to conclude that a preference for introversion or extroversion had an impact on the academic performance of the individuals who participated in this study. The results of this study add to the knowledge base used by instructors (teaching online and traditional courses) administrators, instructional design, and distance (online) education. Recommendations for future studies are included.

CONCLUSION

In the present study the extroversion and the academic performance has been studied to find the relation between the two. It has been predicted that extroversion has a negative influence on academic performance but this study result nullifies this prediction. Students with high extroversion showed poor academic performance in the present study.

SIGNIFICANCE OF THE STUDY

The purpose of the study is based on observed fact that extrovert personalities among the Medical students in students have often come across poor academic performance. It has been understood that extroversion traits as an effect on intelligence and cognitive functions which may have some role on academic performance of students. To formulate intervention measures and counseling objectives this study results can be taken as one of the input.

This research study may further help to develop an awareness and insight among the medical students with regard to their extroversion traits and its impact on academic performance. Further development on this research can be used as a part of the PPDP (Personal Professional Development Programme). Research results can be used as an integral part of counseling to improve on academic performance.

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