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**Research Paper** 



# Neuroticism and Academic Performance in College Going Students: A Correlation Study

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# **ABSTRACT**

The present study was aimed to investigate the relationships between neuroticism and academic performance. A sample of 120 individuals of college going students. Purposive sample was collected through accidental sampling. Result revealed that students with neuroticism (M = 23.60 and SD = 7.436) and for academic performance (M = 61.84 and SD = 12.00). The correlations of neuroticism and academic performance of S.Y. B.Sc. students indicated that there is a strong correlation at 0.01 level between neuroticism and academic performance. Therefore, students with high on neuroticism will be significantly low in academic performance compared to student's low in neuroticism is accepted. The implication of this study was to develop insight in each student the existence of negative emotionality as a dimension of personality and its influence on their academic performance.

**Keywords:** Neuroticism, Academic Performance

Approximately 16 million adults, or 1.6% of the entire population, suffered from depression, according to NIMH estimates. In the world, 350 million individuals suffer from depression, according to the WHO. Thirty million adults in the United States, or eighteen percent of the total population, suffer from anxiety, according to the NIMH. Studies have revealed a correlation between elevated levels of neuroticism in relation to general population levels and a broad spectrum of clinical mental diseases. Disorders include eating disorders, anxiety disorders, schizophrenia and schizoaffective disorders, dissociative identity, and mood disorders like bipolar disorder and depression were all linked to increased neuroticism. More mental and physical health issues seem to be associated with neuroticism than with other personality traits (Maloiff, Thorsteinsson, & Schutte, 2005). Due to a higher degree of nervous system activation, studies have also demonstrated that neurotics are more likely to experience heart attacks and high blood pressure. The field of study is educational psychology.

#### Basic Concepts

In the study of psychology, neuroticism is a core personality trait that is characterized by feelings of jealously, irritability, anxiety, and worry. People with high neuroticism scores are

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more prone than usual to feel anxious, angry, jealous, guilty, or depressed. They react worse to pressures and are more prone to see everyday events as dangerous and minor annoyances as unachievably challenging.

#### Neuroticism Facets

#### N1: ANXIETY

People who are anxious are uneasy, afraid, prone to worry, tense, restless, and anxious. While the scale does not evaluate specific phobias or fears, high scorers are more likely to experience both floating anxiety and certain types of anxieties. Those with low scores are composed and at ease. They avoid thinking about what could go wrong.

#### **N2: ANGRY HOSTILITY**

The propensity to feel angry and associated emotions like frustration and bitterness is symbolized by angry hostility. This scale gauges a person's willingness to become angry; whether or not that anger is conveyed is based on how agreeable they are. However, keep in mind that disagreeable persons frequently have high scores on this scale. Those with low scores tend to be laid back and easily agitated.

#### **N3: DEPRESSION**

This scale assesses variations in each person's propensity to feel depressed affect. High scorers are more likely to experience loneliness, hopelessness, sadness, and guilt. They are frequently depressed and quickly disheartened. Although low scorers don't often feel these kinds of feelings, they are typically linked to extraversion and aren't always upbeat and playful.

#### **N4: SELF CONSCIOUSNESS**

This aspect of N is centered around feelings of embarrassment and shame. These people tend to feel inferior to others, are uncomfortable in social situations, and are sensitive to mockery. Self-consciousness is similar to shyness and social anxiety; according to Fenigstein, Scheier Buss (1975), self-consciousness is public but not private. The reason low scorers are less bothered by difficult social settings is not because they lack poise or good social skills.

#### **N5: IMPULSIVENESS**

The term "impulsiveness" describes the incapacity to restrain desires and wants. Though the person may subsequently regret the action, desires are thought to be so strong that they are impossible to resist. Low scorers have a high threshold for frustration and find it simpler to resist these kinds of temptations. Many thinkers use the term "impulsive" to describe a wide range of sometimes unrelated behaviors.

### **N6: VULNERABILITY**

Stress sensitivity is the last aspect. High scorers on this scale have trouble with stress and react in a dependent, despairing, or panicky manner in emergency situations. Individuals with low self-esteem believe they can manage challenging circumstances.

## Academic Performance

Academic performance refers to the predetermined level of proficiency in academic work determined by test results. Academic success is facilitated by both physical development and mental preparedness.

Various aspects pertaining to social, psychological, environmental, and personal characteristics impact students' academic accomplishments. Therefore, the current research agenda of academic institutions is primarily focused on improving students' competencies, knowledge, and skills related to the subject matter; in actuality, neither the school system nor parents are placing the necessary emphasis on the fostering of values.

#### **Problem Statement**

To study the relationship between Neuroticism and Academic performance.

## Rationale of the Study

People that are neurotic tend to exhibit negative feelings such as stress, anxiety, and depression, as has been noted in the current environment and supported by several research. In situations where it causes an increase in stress levels. Previous investigations have also indicated a detrimental impact of neuroticism on life. Because managing neuroticism can assist manage the elements it influences and improve performance across the board, this topic is highly sought after. Studying the connection between neuroticism and academic achievement is the goal of the current research. Determining knowledge and comprehension of this component in their lives and personalities is the goal of the study.

# Significance of the Study

Based on the observed neuroticism in students, the study aims to determine whether neuroticism, which is one of the elements impacting intelligence and cognitive faculties, has any bearing on students' academic performance. These study's findings can be used as one of the inputs to develop intervention strategies and counseling goals. Students' knowledge and understanding of their emotionality and academic achievement may be further enhanced by this research study. This research can be further developed as part of the Personal Professional Development Programme (PPDP). Research findings can be a crucial component of counseling to raise academic achievement.

The study's second goal focuses on gender and neuroticism, indicating that women have higher levels of neuroticism. can cause people to put off making decisions or acting in order to go on with their lives. Hence, this research study may contribute to the improvement of emotional stability. One of the outputs for the counseling aims may be this research.

## Objective of the Study

To investigate the relationships between neuroticism and academic performance of college going students.

#### **Summary**

This chapter provides an introduction of neuroticism, describes its fundamental ideas, and goes into detail on its relationship to academic achievement. This chapter also provides a thorough explanation of the study's significance and reasoning. The goal and the problem statement are also stated in this chapter.

# REVIEW OF LITERATURE

A review of the literature on the variables employed in this study is included in this chapter. It helps in developing the study's hypothesis as well as improving comprehension of the study's variables.

## Studies on Neuroticism and Academic Performance

Academic performance is a frequently studied topic in psychological study. Higher education and high retention rates are beneficial to individuals as well as society (Bloom, Hartley, and Rosovosky, 2007). Throughout history, psychological research has examined a variety of cognitive and personality determinants of academic performance (Ackerman and Heggested, 1997).

According to Charmorro-Premuzic, Fumham, and Medhrust (1995), neuroticism and academic achievement are negatively correlated. According to research, tension and anxiety during exams have a negative impact on students' academic performance.

According to De Radd and Schouwenburg (1996), individuals with low emotional stability experience anxiety and have a tendency to focus on their emotions and self-perception, which can interfere with their ability to pay attention to academic tasks and ultimately impact their academic performance.

People with high levels of neuroticism are more likely to be unhappy, worried, and vulnerable, and there have been unfavorable connections between neuroticism and academic performance, according to Busato, Prins, Elshout, and Hamarker (2000).

According to Spielberger (1997), people with trait anxiety have disruptions in their information processing, which impairs their performance and has an impact on their academic achievement.

According to Lyumbomirsky (2003) and Verdenburg (1988), students' beliefs and cognitive processes are crucial in determining how well they perform academically. People who are unhappy with their own performance tend to be less motivated to study and experience higher levels of despair.

Busari (2012) & Samsuddin 2013; et al. reveal that some students move away from their families and live in dorms, where they encounter a number of common problems like loneliness and peer pressure, which turn out to be stressors for the students. These students who are unable to cope may also suffer from depression or anxiety, which has a negative impact on their academic performance.

Neuroticism was suggested by Cookson & H.J. Eysenck (1996) to have an impact on academic achievement more as a hindrance than as a motivating factor. According to the statement, neuroticism and academic achievement are inversely associated.

## Summary

The research and conclusions from earlier studies were included in this chapter, which served as the foundation for the formulation of the study's hypotheses.

## METHODOLOGY

It seems that neuroticism is connected to physiological variations in the brain. According to Hans Eysenck's theory, neuroticism is a result of limbic system activity. Additionally, his study indicates that individuals with high neuroticism scores have more relative sympathetic nervous system activity and environmental stimulation.

This chapter focuses on discussing study variables, research procedure designs implemented during data collecting, and techniques employed for data analysis and interpretation.

# **Operational Definitions**

- NEUROTICISM: Angry, depressed, anxious, worried, hostile, self-conscious, and vulnerable are all considered signs of neuroticism. According to the operational definition of neuroticism used in this study, scores above (56-65) are considered high, whereas scores below (35–44) are considered mild.
- ACADEMIC PERFORMANCE: According to the study, the final F.Y. B.Sc. exam marks serve as an operational definition of academic performance. Either high (60 percent or more) or low (below 60 percent) students.

## Hypotheses

When compared to pupils with lower levels of neuroticism, those with higher levels of neuroticism will perform substantially worse academically.

## Sample

One hundred and twenty college-bound students who passed the F.Y. B.Sc. exam and were pursuing their S.Y. B.Sc. made up the total sample for this study. Using the survey approach and accidental sampling, the sample was gathered.

#### **Tools**

This section enumerates the instruments used to gather data, such as assessments and measuring scales. Only the following tool was used.

**Test:** Neo Five Factor Inventory -3 (Neo FFI -3)

Authors: (Paul T. Coasta, Jr Phd, & Robert R. McCrae, Phd)

Published: 1985

## **Description of the Test:**

This section enumerates the instruments used to gather data, such as assessments and measuring scales. Only the following tool was used.

The five basic domains or dimensions of personality, as well as the key characteristics or aspects that comprise each domain, are succinctly measured by the NEO Inventories. Adolescent and adult personality can be thoroughly assessed using the five broad domain measures and the thirty specific facet scales together.

The initial NEO inventory, which measured 18 qualities classified into the categories of neuroticism (N), extraversion (E), and openness to experience (O), was the basis for the NEO inventories, a set of closely related instruments created over a 30-year span. Measures of two additional fundamental personality traits have been incorporated into the inventories since 1985. conscientiousness (C) and agreeableness (A). The current NEO Inventories, including the NEO Personality Inventory – 3 (NEO-PI-3), are described in this Professional Manual as follows: The NEO Personality Revised inventory (NEO-PI-R); alternatively, the NEO Five-Factor Inventory-3 (NEO-FFI-3) in abbreviated form. We also introduce the NEO-FFI-3 in this Professional Manual. The five main domains of personality are evaluated with this 60-item test. One strong disagree to five strongly agree on 60 issues using a 5-point rating system. The NEO-FFI-3 is suitable for participants who are 12 years of age or older, and norms are given.

#### **Psychometric Properties**

Reliability: The aspects scales range from .56 to .90, and the domain scale from .86 to .95, indicating strong internal consistency. The N scale has shown reliability coefficients ranging from .68 to .82, as well as well-established reliability and retest reliability.

Validity: The N scale exhibits strong internal consistency and good validity, as indicated by its coefficient alpha of.92.

**Scoring:** The overall raw score that is arrived at by adding the individual scores of each item. (6,11,16,21,26,31,36,41,46,51, and 56) The domain of neuroticism exhibits both high and low scores when seen through a raw score.

#### **Procedure**

The current study was carried out by gathering a sample of S.Y.BSc. students who planned to attend college. Students: Following a review of their F.Y.B. Sc. final test scores, they were split into two groups: high academic performance (above 60%) and low academic performance (below 60%). They received a thorough explanation of the instructions on the questionnaire. They were also informed that the scores would be kept private. It was verified that no participant had left any questions unanswered or had marked any answers to questions.

## Statistical Analysis

The datasheet's mean and standard deviation were interpreted using descriptive statistics. To investigate the connection between neuroticism and academic achievement, Pearson's Product Moment Correlation was used.

#### Summary

The operational definitions of the terms used in the current investigation are provided in this chapter, along with a list of the formulated hypotheses. This chapter also covered the procedures and tools utilized for gathering data, as well as the statistical tests that were run to verify the hypotheses.

# RESULTS AND DISCUSSION

The NEO-FFI scale, academic performance, and neuroticism of 120 S.Y. B.Sc. faculty members who satisfied the inclusionary requirements for data collection were all subjected to statistical analysis. The intricate data analysis's findings are presented in this chapter, and a discussion follows.

#### Results

This section deals with the results of the study in detail.

To Find Out the Relationship Between Neuroticism and Academic Performance

Hypothesis: Students with high neuroticism will fare significantly less well academically than students with low neuroticism.

Table 4.2.1.1 Descriptive statistics of neuroticism and academic performance

Variables	Mean	Standard deviation	N
NEUROTICISM	23.60	7.436	120
ACADEMIC PERFORMANCE	61.84	12.007	120

Table 4.2.1.2 Pearson product moment correlation of neuroticism and academic achievement

VARIABLES		NEUROTICISM	ACADEMIC PERFORMANCE
ACADEMIC PERFORMANCE	Pearson Correlation Sig. (1-tailed)	1	406** .000
NEUROTICISM	Pearson Correlation Sig. (1-tailed)	406** .000	1

<sup>\*\*</sup> correlation is significant at the (P < 0.01) level; \*: significant at (P < 0.05) levels

The above table (4.2.1.1) shows the descriptive statistics for neuroticism and academic performance. The score for neuroticism with mean= 23.60 and SD=7.436 and the score for academic performance with mean=61.84 and SD=12.007.

Table (4.2.1.2) shows the correlations of neuroticism and academic performance of S.Y. B.Sc. Students. Indicated that there is a positive relationship between neuroticism and academic performance. Therefore, students with high on neuroticism will be significantly low in academic performance compared to student's low on neuroticism is accepted.

## DISCUSSION

The current study looked at how neuroticism affects academic achievement. 120 S.Y.BSc. faculty members' students served as the sample for the study. The statistical analysis that followed the scoring is covered in the earlier section of this chapter. The discussion of results is the focus of this chapter.

## Neuroticism and Academic Performance

The idea that children with high levels of neuroticism will perform much worse academically than students with low levels of neuroticism is supported by the results obtained. This could be caused by a variety of factors, some of which have been addressed by other studies.

According to study by De Radd and Schouwenburg (1996), individuals with low emotional stability tend to be more nervous and focus more on their emotional state and self-perception, which interferes with their ability to pay attention to academic tasks and affects their academic performance.

Research from the past has indicated that neuroticism and academic performance are negatively correlated (Chamorro-Premuzic & Fumham, & Medhurst, 1995). They discovered that stress and anxiety during exam conditions have an impact on academic performance. Spielberger (1997) asserts that people with trait anxiety are more prone to have disruptions in their information processing and impairments in their performance (state anxiety).

Busato, Prins, Elshout, and Hamarker (2000) showed negative connections between neuroticism and academic performance, stating that people with high levels of neuroticism tend to be unhappier, worried, and vulnerable.

According to Lyumbomirsky (2003) and Verdenburg (1988), students' beliefs and cognitions are crucial in determining how well they perform academically. Those who are unhappy

with their own performance tend to be less motivated to study and experience higher levels of despair.

Busari (2012) and Samsuddin (2013), among others, reveal that some students move away from their families and live in dorms, where they encounter a variety of common problems such as loneliness and peer pressure, which turn out to be stressors for the students. Some students who are unable to cope may also suffer from depression or anxiety, which has a negative impact on their academic performance.

Cookson and H.J. Eysenck (1996) suggested that neuroticism was more of a hindrance than a motivating factor when it came to influencing academic success. Accordingly, there is a negative correlation between academic achievement and neuroticism.

Thus, the hypothesis might have been accepted in light of the previously mentioned research findings and the literature review.

## Summarv

These chapters contain introduction, result and discussion based on which hypothesis is formed.

# SUMMARY, CONCLUSION AND SUGGESTION

This section includes brief summary of the study. This chapter contains conclusions, implications, limitations and suggestions for future research.

## Summary

The current study looked on the relationship between academic achievement and neuroticism. The sample consisted of 120 S.Y. BSc faculty students in total. The proportion of F.Y. BSc. was used to gauge academic success, and the NEO-FFI 3 scale was used to collect the data. The following theories were developed in light of the literature review: When compared to kids who are low on neuroticism, those who are strong on neuroticism will perform noticeably worse academically.

Using NEO-FFI 3 inventory (adolescent) as a test hypothesis: (Robert R. McCrae, PhD, and Paul T. Coasta, Jr., PhD) 1985

Sample data was mostly collected utilizing the technique of inadvertent sampling. The current study was carried out by gathering a sample of S.Y. BSc. students who planned to attend college. After reviewing their F.Y. BSc. marks, they were split into two groups based on how well they had performed academically: highly performing (above 60%) and poorly performing (below 60%).

Students received data sheets and were assured that their participation in the study would be voluntary and that any information they submitted would be kept private and used exclusively for that reason.

The independent t-test was employed to compute the findings and test the hypotheses. The findings supported the expectation that pupils with high levels of neuroticism would perform far worse academically than those with low levels of neuroticism.

#### Conclusion

Students high on neuroticism will be significantly low in academic performance compared to students low on neuroticism.

## Implications of the Study

- Student academic performance may be impacted by this study, which is predicated on the idea that neuroticism is one of the elements influencing intelligence and cognitive abilities.
- Students' understanding and awareness of emotionality and academic achievement would be further enhanced by this research project.
- A key component of counseling to raise academic achievement is the utilization of research outcomes.

# Limitations of the Study

- The social desirability of the study's participants may have influenced the results.
- The research may be impacted by student characteristics (such as race, age, sex, and socioeconomic status), performance criteria (such as test scores and coursework grades), and contextual factors (such as institutional type).
- No variable is under control, save from academic achievement. That could be having a detrimental effect on the study.
- Because the gender variable was not controlled, the outcomes might be impacted.

# Suggestions for Further Research

- Comparing males and females can be studied through similar studies.
- Larger samples can be used in the study in order to draw generalizations.
- To determine the impact of cultural bias on research, this study can also be carried out in other parts of the state with colleges chosen at random.

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## Conflict of Interest

The author(s) declared no conflict of interest.

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