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Research Article

The Influence of Personality Traits and Self-efficacy on Academic Performance Among Young Adults

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Abstract

This study seeks to explore how the personality traits and self-efficacy influence academic performance among young adults of 18 to 25 years. This topic falls within the scope of positive psychology studies, which contribute to the mental health of all ages and backgrounds. Utilizing a correlational research design and quantitative approach the research will involve approximately 300 participants elected through purposive sampling based on a defined inclusion and exclusion criteria. Validated questionnaire will be employed to assess the personality traits, self-efficacy and academic performance. Statistical analysis such as, Descriptive statistics, Spearman Rank Correlation and Linear Regression method was conducted to evaluate the relationship between the variables such as personality traits, self-efficacy and academic performance. This study revealed that there is relationship between personality traits, self-efficacy and academic performance. The variables such as personality traits and self-efficacy is a predictor of academic performance among young adults.

Keywords

Personality, Personality Traits, Motivation, Self-efficacy, Academic Performance, Young Adults

1. Introduction

In general, a number of factors can affect a student's academic performance, such as intrinsic motivation, self-regulation learning strategies, self-efficacy, prior education, and throughput factors like employment, finances, and academic engagement. Academic performance is impacted by personality traits, according to studies [9, 28].

The vast majority of young people do manage to survive this transition to adulthood, which can happen at different ages and in myriad ways, from adolescence through the mid-to-late-20 s and later. But many young people face hurdles in the early stages of their lives, whether by having children — or having them too early — or by dropping out of school, having trouble getting employed or getting in trouble with the law. >> In addition to complicating maturation, these incidents might have lingering repercussions by threatening a young person’s capacity [8].

Young Adulthood is the sixth stage of Erikson’s theory of psychosocial development, where people struggle with forming enduring friendships and intimate relationships outside of their family. Successful resolution in this area promotes the virtue of love and strong, lasting relationships. In contrast, when intimacy is hard to attain, it can lead to depression, loneliness and isolation. anxiety or are dealing with a loss of some kind — I suggest they do something to change the energy in their environment [6].

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1.1. Personality

An individual's "personality" is the dynamic fusion of their entire subjective experience and their behavioural patterns, which can include both conscious and unconscious behaviours. Dynamic integration posits that an individual's personality is made up of coherent, well-structured connections between a variety of influencing traits and experiences. The personality is a much more complex and nuanced entity than the sum of its constituent characteristics [30].

1.2. Personality Traits

People's distinctive thought, emotion, and behaviour patterns are reflected in their personality traits. A person with a high score on a particular personality trait, such as extraversion, is expected to be gregarious in a variety of contexts and over time. Personality traits suggest consistency and stability [17].

Gordon Allport focused more on the conscious than the unconscious mind. He maintained that experiences in the past have less of an impact on personality than experiences in the present and the future. Allport promoted individuality and presented a positive picture of human nature. Childhood experiences don't shape who we are. Because we are in charge of our lives, we can creatively determine how we live and change as a result of our innate need for independence, uniqueness, and self-identity [20].

Cattell argues that traits or factors are fundamental components of personality. While people may share common traits, unique traits are often specific to individuals. Our ability traits influence task performance, while temperament affects our emotional behavior. Dynamic qualities relate to motivation. Surface traits are interconnected personality characteristics that do not stem from a single source. Cattell identified 16 source traits, each representing a unique element that impacts specific behaviours [20].

Eysenck found that two dimensions—extraversion (E) and stability/neuroticism (N)—can be applied to behaviour. He called some of these characteristics "second-order personality traits." Each of the three aspects of personality—extraversion, neuroticism, and psychoticism—has biological components. The interaction between the autonomic nervous system's excitation and inhibition processes shapes personality [26].

Two personality inventories have been identified by Costa and McCrea as defining and explaining personality traits. The five main personality traits—conscientiousness, extroversion, agreeableness, neuroticism, and openness to new experiences—are measured by the NEO PI R and NEO FFI inventories, which may be among them. The updated NEO PI R personality inventory has 240 items and 30 scales measuring different personality traits, making it a longer test. A condensed version of the personality inventory, the NEO FFI consists of 60 items that measure the five dimensions of personality [2].

Eysenck defines a person's "personality" as a more or less consistent and long-lasting arrangement of their character, temperament, intellect, and physical characteristics that affects how they individually adjust to their environment. The Eysenck personality model considers the existence of what were once called superfactors, dimensions, or traits. This theory views the three fundamental pillars of personality as neuroticism (N), extroversion (E), and psychoticism (P). The updated Eysenck Personality Questionnaire has 100 items, compared to 90 in the original. It is believed that these tests assess the same three facets of personality [24].

Motivation and personality traits are closely connected to one another. Personality traits can also serve as a predictor of motivation. The big 5 personality traits are relevant to motivation in a similar manner. Of the five personality traits, conscientiousness is believed to be consistently related to higher motivation. There is a negative correlation between neuroticism and motivation. The extroverted trait and motivation are related positively. Motivation may demonstrate moderately weaker correlation with traits such as agreeableness, depending on the context [27].

1.3. Motivation

Motivation refers to the elements that propel actions characterised by a feeling of choice and willingness. It is thought to be the attribute that forces us to act or not act. A web of interrelated ideas, attitudes, values, passions, and actions makes up motivation. Individuals' motivation levels frequently vary depending on the subject, and this specificity tends to increase with age [29].

Self-efficacy and motivation are concepts that have something in common with one another. The word "motivation" describes an internal or external force that induces an individual to strive toward achieving and/or attaining specified goals or results. The construct of "self-efficacy" was created by Albert Bandura to expound on an individual's belief in their ability to carry out the actions necessary to reach goals. Those with high self-efficacy have been demonstrated to have greater levels of motivation. The research literature makes it clear that both self-efficacy and motivation are causally related. Self-efficacy and motivation have different and varying effects on an individual's behavior and performance together [21].

1.4. Self-Efficacy

Self-efficacy is the conviction that we are capable of overcoming obstacles and accomplishing challenging tasks. Self-efficacy can take many different forms, but generally speaking, it refers to our belief that we can succeed [22].

Bandura defines self-efficacy as an individual's unique set of beliefs that dictate how well they can carry out a plan of action in hypothetical circumstances. Self-efficacy, to put it another way, is the conviction that one can achieve under particular circumstances. In order to demonstrate how self-efficacy rises, Bandura looks at information from four primary sources: emotional and physiological states, vicarious experience, mastery experience, and social persuasion [23].

1.5. Academic Performane

According to the theoretical model of educational outcomes or students' academic performance, the learner, the learning environment, and the quality of instruction received are all emphasised. The psychological traits of students and their immediate psychological environments have an impact on the educational outcomes, according to Walberg's theory of educational productivity. Nine main factors are identified by Walberg's theory of educational outcomes: student ability/prior achievement, motivation, age/developmental level, quantity/quality of instruction, classroom climate, home environment, peer group, and exposure to mass media outside of school [19].

Muhammed et al (2010) researched and titled it as "The Impact of Motivation on Students' Academic Performance: A Case Study of University Sultan Zainal Abidin Students. Their results overall demonstrate that motivation and academic performance were positively related, meaning that with improvement in student motivation, will come an improvement in their academic performance as well. In addition, the results showed that student motivation had a positive correlation with student performance and had the potential to serve as a reliable indicator of student performance [13].

2. Tools and Methods

2.1. Tools

NEO Five Factor Inventory

NEO Five Factor Inventory is a structured questionnaire developed by Costa & Mc Crae (1992) consisting of 60 items focusing on 5 different dimensions. The different dimensions include Neuroticism, Extroversion, Openness to experience, Agreeableness, and Conscientiousness. Each dimension of the questionnaire has 12 questions. The questionnaire is a 5 point likert scale ranging from Strongly disagree to Strongly agree. In each dimension some questions are scored in a reverse manner. Each dimension scores from 0 to 60 with a higher score indicates high in each dimension.

General self-efficacy Scale'

The General Self-Efficacy Scale is a structured questionnaire developed by Ralf Schwarzer and Matthlas Jerusalem in 1979. It consist of a standardised set of items with a fixed format, specifically 10 statements related to self-efficacy. The statements can be scored on a 4 point Likert scale with responses ranging from Not at all true to Exactly true. This format allow for consistent scoring and analysis, making it a reliable tool for assessing self-efficacy.

Academic Performance Questionnaire

Academic Performance scale is a structured questionnaire that was carried out by Birchmeier, Grattan, Hornbacher, and McGregory. The scale consist of 8 items and the scale is scored based on 5 point Likert scale. The responses of the scale ranges from Strongly disagree to Strongly agree. The score of the scale ranges from o to 40, the highest score in this scale indicates that Excellent Performance.

2.2. Methods

Aim

To investigate the influence of Personality traits and Self-efficacy on Academic Performance among Young Adults.

Null hypothesis

There will be no relationship between Personality traits, Self-efficacy and Academic Performance.

Research design

Correlational research design, Linear regression

Sample size

Using a purposive sampling technique, a sample of 300 or more measurements/surveys are needed to have a confidence level of 95% that the real value is within ±5% of the measured/surveyed value for a population size of 4,48,200 with a population proportion of 26.6%.

Sampling procedure

Purposive Sampling technique had been choosen as sample approximately adults from the community.

Inclusion criteria

Individuals with the age range between 18-25 yearrs. Includes both male and female population. Individual with 14 years of formal school education and are able to read, wrie, and comprehend in English language.

Exclusion criteria

Individuals those who are with a history of academic failure or disruptions in their education. Individuals who are with diagnosis of learning disorders, cognitive impairment.

Procedure

Young adults in the community age range 18-25 years will be approached. They had been provided with the nature of the study and the informed consent had been taken from the population. The questionnaire such as NEO Five Factor Inventory, General Self Efficacy Scale, and Academic Performance Scale will ne given and responses are collected.

Statistical analysis

We used IBM SPSS Statistics to carry out all the statistical analyses. To explore the connections between academic performance, self-efficacy, and personality traits, we applied the Spearman rank-order correlation. Additionally, we assessed the predictive relationship among these variables using linear regression analysis. For our findings to be deemed statistically significant, we set the significance level at $p < 0.05$.

3. Results

Table 1 indicates the Test of Normality scores of every variable. Based on Shapiro-Wilk test, Neuroticism, Openness, Agreeableness, Conscientiousness, self-efficacy, and Academic performance, had a significance value as <.001 and Extroversion had a significance value of 0.18.

Table 1. *Represents Shapiro-Wilk Tests of Normality (n=300).*

	KS			SW		
	Stat	**df**	**Sig**	**Stat**	**df**	**Sig**
Ne	.321	300	<.001	.157	300	<.001
Ex	.073	300	<.001	.988	300	.018
0p	.099	300	<.001	.959	300	<.001
Ag	.233	300	<.001	.463	300	<.001
Co	.105	300	<.001	.939	300	<.001
SE	.074	300	<.001	.977	300	<.001
AP	.128	300	<.001	.962	300	<.001

Table 2. *Represents the correlation between personality traits, self-efficacy, and academic performance among young adults.*

Sr			**SE**	**AP**
	Ne	Cc	.040	.093
		Sig	.486	.110
		N	300	300
	Ex	Cc	.396**	.325**
		Sig	<.001	<.001
		N	300	300
	Op	Cc	-.037	-.120*
		Sig	.528	.038
		N	300	300
	Ag	Cc	-.042	-.034
		Sig	.474	.561
		N	300	300
	Co	Cc	.448**	.453**
		Sig	<.001	<.001
		N	300	300

From the table 2, it can be inferred that there is moderate positive correlation (r=.40), but the relationship between Neuroticism and Self-efficacy is not statistically significant (p=.486). It can also infer that the correlation analysis revealed that there is a strong positive correlation (r=.93), but the relationship is not statistically significant (p=.110) between Neuroticism and Academic Performance. This indicates that there is no significant relationship between Neuroticism and Self-efficacy.

From Table 2, it can be inferred that the analyses revealed that there is a moderate positive correlation (r=.396), and it also indicates that the relationship is statistically significant (p<.001). this indicates Extroversion has a moderate positive correlation with the Self-efficacy. the analyses also revealed that there is a moderate positive correlation (r-.325), and the relationship is statistically significant (p<.001). this indicates that there is a moderate positive correlation between Extroversion and Academic Performance.

From the Table 2, it is evident that there is a weak negative correlation (r=-.037), but the relationship is not statistically significant (p=.528). This indicates that Openness has no significant relationship with Self-efficacy. It also indicates that there is a weak negative correlation (r=-.120), but there is statistically significant relationship (p=.038). This indicates that there is a weak negative correlation between Openness and Academic performance.

From Table 2, is can be inferred that the correlation between Agreeableness and Self-efficacy (r=-.042) has a weak negative correlation, but it is not statistically significant (p=.474). This indicates that there is no significant relationship between Agreeableness and Self-efficacy. it also indicates that there is a very weak negative correlation (r=-.034) and the relation is not statistically significant (p=.561) between Agreeableness and Academic performance. It indicates that there is no significant relationship between Agreeableness and Academic performance.

From the Table 2, it can be inferred that there is moderate positive correlation (r=.448), the relationship is statistically significant (p<.001) between Conscientiousness and Self-efficacy. It indicates there is a moderate positive and statistically significant relationship between Conscientiousness and Self-efficacy. It also indicates that there is a moderate positive correlation (r=.453 and the relationship is statistically significant (p<.001) between Conscientiousness and Academic performance. It can be inferred that there is a moderate positive and statistically significant relationship between Conscientousness and Academic performance.

Table 3. *Represents the impact of Neuroticism on Academic Performance.*

		UsC			SC	
M		**B**	**Std.E**	**Beta**	**t**	**Sig**
1	C	26.840	.743		36.112	<.001
	Ne	.010	.011	.052	.894	.372

From the table 3, it is evident that linear regression was conducted to examine the influence of Neuroticism on Academic performance. The Neuroticism has an unstandardized coefficient (B=.010, S. E=.11). The standardized coefficient (B=.052, t=.894, p=.372) indicates a very small positive influence of

Neuroticism on Academic performance. It indicates that Neuroticism is not a predictor of Academic performance (p=/372).

Table 4. *Represents the influence of Extroversion on Academic performance.*

		UsC			SC	
M		**B**	**Std.E**	**Beta**	**t**	**Sig**
1	C	17.555	1.972		8.902	<.001
	Ex	.201	.040	.282	5.079	<.001

From the table 4, it can be inferred that linear regression was conducted to examine the influence of Extroversion on Academic performance. The Extroversion has an unstandardized coefficient (B=.201, S. E=.040). The standardized coefficient (B=.282, t= 5.079, p<.001) indicates a moderate positive influence of Extroversion on Academic performance. It indicates that Extroversion has a moderate positive and statistically significant relationship that implies Extroversion is a predictor that influence Academic performance.

Table 5. *Represents the influence of Openness on Academic performance.*

		UsC			SC	
M		**B**	**Std.E**	**Beta**	**t**	**Sig**
1	C	31.047	1.891		16.422	<.001
	Op	-.081	.042	-.112	-1.945	.053

From the table 5, it can be inferred that linear regression to examine the influence of Openness on Academic performance. The Openness has an unstandardized coefficient (B= -.081, S. E=.042). The standardized coefficient (B=-.112, t= -1.945, p=.053) indicates a weak negative influence of Openness on Academic performance. This indicates that the Openness has a weak negative, but not statistically significant relationship with Academic performance.

Table 6. *Represents the influence of Agreeableness on Academic performance.*

		UsC			SC	
M		**B**	**Std**	**Beta**	**t**	**Sig**
1	C	27.791	.865		32.122	<.001
	Ag	-.010	.022	-.026	-.454	

From the table 6, it can be inferred that linear regression has be used to examine the influence of Agreeableness on Academic performance. The agreeableness has an unstandardized coefficient (B=-.010, S. E=.022). The Agreeableness has a standardized coefficient (B=-.026, t=-.454, p=.650) indicates a very weak negative and not statistically significant relationship with Academic performance. This indicates that Agreeableness do not have statistically significant relationship with Academic performance.

Table 7. *Represents the influence of Conscientiousness on Academic performance.*

		UsC			SC	
M		**B**	**Std.E**	**Beta**	**t**	**Sig**
1	C	16.808	1.353		12.420	<.001
	Co	.273	.034	.423	8.066	<.001

From the table 7, the linear regression method is used to examine the influence of Conscientiousness on Academic performance. The Conscientiousness has an unstandardized coefficient (B=.273, S. E=.034). the Conscientiousness has a standardized coefficient (B=.423, t= 8.056, p<.001), that indicates a moderate positive, statistically significant relationship with Academic performance. This indicates that the Conscientiousness is a predictor of Academic performance.

Table 8. *Represents the influence of Self-efficacy on Academic performance.*

		UsC			SC	
M		**B**	**Std.E**	**Beta**	**t**	**Sig**
1	C	16.011	1.316		12.169	<.001
	Co	.399	.045	.459	8.922	<.001

From the table 8, it is evident that linear regression has been used to examine the influence of Self-efficacy on Academic performance. The Self-efficacy has an unstandardized coefficient (B=.399, S. E=.045). The Self-efficacy has a stand-

ardized coefficient (B=.459, t= 8.922, p<.001), that indicates moderately strong positive, statistically significant relationship with Academic performance. It can be inferred that Self-efficacy is a predictor of Academic performance.

4. Discussion

The purpose of this study was to look into the connection between young adults' academic performance, self-efficacy, and personality traits. There is no correlation between these variables, according to the hypothesis. 300 people took part in the study, which collected data using a structured questionnaire and SPSS software. In order to contextualise the results, socio-demographic variables including age, gender, marital status, academic program, family structure, and place of residence were taken into account in addition to descriptive statistics, linear regression, and Spearman rank correlation.

The hypothesis was assessed using Spearman Rank Correlation and Linear Regression via SPSS software. These methods analyzed the relationships and predictive power of self-efficacy and personality traits on academic performance, the dependent variable. Descriptive statistics provided insights into participants' scores in academic performance, self-efficacy, and personality traits, with mean and standard deviation highlighting central tendencies and variability. SPSS results indicated that academic performance, self-efficacy, and personality traits—conscientiousness, openness, neuroticism, extraversion, and agreeableness—showed varying distributions.

Spearman Rank Correlation

Personality traits and Self-efficacy

There was no discernible correlation between neuroticism and self-efficacy according to the Spearman rank correlation analysis, suggesting that changes in neuroticism scores are not predictive of changes in self-efficacy scores. This implies that a person's degree of neuroticism has little bearing on how confident they are in their ability to complete tasks. As a result, self-efficacy and neuroticism may function independently, and emotional stability has no effect on self-belief. Compared to traits like conscientiousness or extraversion, as well as elements like life experiences and education, emotional traits like neuroticism probably have less of an effect on self-efficacy. The sample's particular characteristics or the setting in which self-efficacy was assessed could be the cause of the lack of a relationship.

While neuroticism is related to emotional patterns, self-efficacy is the belief in one's own ability to accomplish tasks. These two ideas might not have much in common. Neurotic individuals may grow resilient or adopt coping mechanisms that improve their sense of self-efficacy. A lack of variation in neuroticism scores within the sample may make it more difficult to find a significant correlation, even though neuroticism can affect self-efficacy [15].

Higher extraversion scores are associated with higher levels of self-efficacy, according to the Spearman rank correlation, which shows a moderately positive correlation and a statistically significant relationship between the two. Given its significance and moderate strength, this relationship is unlikely to be random.

Extraverts typically feel more comfortable in social situations, which enhances their confidence in tackling challenges and responsibilities. Their inclination towards positive emotions increases their motivation and sense of control over outcomes. This ease in social interactions strengthens their belief in their task management abilities. Furthermore, their regular positive experiences boost their motivation and perceived control, while greater social support further reinforces their confidence [31].

Openness and self-efficacy exhibit a weak, statistically insignificant negative correlation according to the Spearman rank correlation analysis. Although individuals open to new experiences may see a slight decrease in self-efficacy, this correlation is minimal. The small sample size may hinder the detection of weak but significant relationships, and the relationship may not be linear or affected by other factors. A correlation between self-efficacy and openness may only exist in certain areas, and if most participants share similar levels of openness, establishing a link with self-efficacy is challenging.

A study examined the connection between final-year medical students' personality traits and self-efficacy. The results showed a marginally significant positive correlation ($r = 0.08$) between self-efficacy and openness to experience. This implies that in this situation, openness might not be a reliable indicator of self-efficacy [7].

The Spearman rank correlation method revealed that Agreeableness has a weak negative correlation that is not statistically significant with self-efficacy. Accordingly, there may be a very slight correlation between self-efficacy and agreeableness, with higher agreeableness scores generally translating into slightly lower self-efficacy scores. Because it's negative, it implies a weak tendency for more amiable people to have less confidence in their skills, but this is again not the case.

The Big Five personality traits and generalised self-efficacy were examined in this extensive meta-analysis, which included 53 studies with over 28,000 participants. The results showed a slight positive relationship between self-efficacy and agreeableness. But the effect size was small, indicating that the relationship is weak and might not be important in real life [25].

The Spearman rank correlation implies that conscientiousness has a moderate positive correlation and statistically significant relation with self-efficacy. Self-efficacy tends to rise in tandem with conscientiousness. Conscientious people typically have greater confidence in their capacity to complete tasks successfully. The relationship is meaningful even though its strength is neither very strong nor weak. This implies that self-efficacy is influenced by a number of factors, including but not limited to conscientiousness. The outcome is not the product of chance.

134 college students participated in the study "Relationship between Conscientiousness, Self-efficacy, Self-deception and Learning over time," which discovered a significant and positive relationship between conscientiousness and early training self-efficacy. The findings showed that people who were more conscientious also tended to be more confident in their capacity to pick up new skills [10].

Personality traits and Academic performance

The Spearman rank correlation revealed that Neuroticism has weak positive correlation and there is no statistically significant relationship with academic performance. Accordingly, academic performance tends to rise somewhat—but not significantly, as neuroticism rises. In real life, those who are a little more neurotic might perform marginally better academically, but the correlation is weak and unreliable. This suggests that rather than representing a significant or recurring pattern, the observed correlation may simply be the result of chance.

There were 120 participants in the study, "Neuroticism and Academic Performance in College Going Students: A Correlation Study." According to this study, college students' academic performance and neuroticism were significantly correlated negatively, meaning that those with higher neuroticism scores typically performed worse academically [16].

The Spearman rank correlation revealed that Extraversion has a moderate positive correlation and the relationship is statistically significant with academic performance. This indicates that academic performance generally, though not always, rises in tandem with extraversion. We can be fairly certain that extraversion does, in fact, have some bearing on academic achievement in the population under study because the relationship is unlikely to be the result of chance.

A research project titled "A meta-analysis of the five-factor model of personality and academic performance". Over 413,000 participants' data from 267 independent samples were combined in this extensive meta-analysis. According to the study, extraversion had a much greater impact on academic achievement in elementary and middle schools than it did in higher education. This implies that there is a positive correlation between younger students' academic performance and extraversion [18].

The correlation analyses revealed that openness has a weak negative correlation and the relationship is not statistically significant with academic performance. Academic performance tends to decline slightly, but only very slightly, as openness increases. The "negative" portion simply denotes direction rather than strength. The relationship isn't strong enough to declare with certainty that it's meaningful or real. It might simply be the result of random variation or chance in the data.

The research was entitled "Big Five Personality Traits and Academic Performance: A Meta Analysis", Over 413,000 participants' data from 267 independent samples were combined in this extensive meta-analysis. According to the study, openness to experience had a smaller overall influence on academic performance, even though cognitive ability was the most significant predictor. Interestingly, compared to higher education, the correlation between openness and academic achievement was stronger in elementary and middle schools [11].

The correlation analyses revealed that agreeableness has a very weak negative correlation and the relationship is not statistically signifivant with academic performance. This implies that more agreeable students do not always outperform their less agreeable peers in the classroom. Academic success tends to be more positively correlated with traits like conscientiousness. Better grades or test scores are not always the result of being kind or easy to get along with, though it may help with group projects.

The research was entitled "Personality and intelligence interact in the prediction of academic achievement". According to this study, there was a non-significant negative correlation ($r = -0.10$) between agreeableness and GPA. Overall, agreeableness was not a significant predictor of academic performance, although some of its traits, like straightforwardness and tender-mindedness, showed somewhat stronger negative correlations [3].

The relationship between academic performance conscientiousness had a moderately positive correlation, according to the Spearman rank correlation analysis, suggesting a significant relationship. This implies that qualities like discipline and organisation associated with higher conscientiousness are linked to better academic results. Although the moderate correlation suggests that other factors like emotional stability, environment, motivation, and intelligence also play a role in academic success, the significance of this relationship confirms that it is not coincidental.

The study "Conscientiousness and acaddemic performance: a mediational analysis" Among 223 undergraduate students, this study discovered a significant positive correlation between conscientiousness and academic achievement. Additionally, it found that test anxiety and academic self-efficacy acted as mediators in this relationship [5].

Regression analysis

The Regression analyses revealed that Neuroticism is not a predictor of academic performance. The data show no statistically significant correlation between neuroticism levels and academic achievement. Differences in academic performance cannot be predicted or explained by neuroticism. The explanatory power of the model is not increased by its inclusion.

The research was entitled "Personality characteristics as a predictor of academic performance of secondary school students". Multiple regression analysis and Pearson correlation were used in this study to investigate the connection between secondary school students' academic achievement and the Big Five personality traits. The results showed that neuroticism did not significantly contribute to the regression model (Beta = -0.002, $t = 0.02$; $p > 0.05$) or have a significant relationship with academic performance ($r = -0.01$, $p > 0.05$) [1].

The regression analysis revealed that Extraversion revealed

as a predictor of academic performance. Higher extraversion is linked to better academic achievement if the regression coefficient is positive. Higher extraversion is associated with poorer academic achievement if the coefficient is negative. The coefficient's size shows how much a one-unit change in extraversion affects academic performance.

The research was entitled "Personality predicts academic performance. evidence from two longitudinal university samples". The predictive ability of personality traits on university students' academic performance was investigated in this long-term study. The results showed that extraversion and academic results had a complicated relationship, with extraversion occasionally improving performance through greater engagement and participation in class [4].

The regression analysis revealed that openness is not a predictor of academic performance. Academic performance does not change in tandem with changes in openness. To put it another way, a person's degree of openness has no bearing on how well they will do in school. There is no discernible difference in academic results that can be explained by openness in this particular dataset or context.

The research was titled "Predicting academic achievement in adolescents: The role of intelligence and personality". There are 305 participants in this research. Structural equation analysis, multiple regression analysis, and correlation are among the statistical techniques employed. According to the current study's findings, academic achievement and psychological maturity are connected. Academic performance is not directly correlated with any of the two personality traits that are correlated with it: conscientiousness and openness to new experiences [12].

The regression analysis revealed that agreeableness is not a predictor of academic performance. Variations in academic performance cannot be explained by changes in agreeableness). The relationship between academic success and agreeableness may be negligible or non-existent. Characteristics like intelligence, motivation, or conscientiousness might be more accurate indicators.

Conscientiousness is predicted of academic performance, according to the regression analysis. Conscientiousness and academic success are typically positively correlated. Therefore, as conscientiousness increases, academic performance tends to improve. Even after accounting for other factors, conscientiousness lends predictive value to the model. In other words, it is not just a coincidental association and frequently contributes to the explanation of academic success. Conscientiousness-related traits could be promoted by educators, psychologists, or schools to help students perform better academically.

The research was entitled "Predicting school grades: can conscientiousness compensate for intelligence?" This study, which looked at 3,775 13th graders in Germany, discovered that academic grades were positively impacted by both intelligence and conscientiousness. In subjects like German, mathematics, and biology, there were noteworthy synergistic interactions between intelligence and conscientiousness, suggesting that conscientiousness amplifies the impact of intelligence on academic achievement [32].

The regression analysis revealed that self-efficacy is a predictor of academic performance. Academic performance. Academic achievement typically rises in tandem with self-efficacy. Academic performance is the dependent variable (outcome) and self-efficacy is the independent variable (predictor) in the regression model. Although there is a strong correlation between the two, the analysis does not prove that self-efficacy leads to improved performance.

The research was entitled "The relationship between self-efficacy and academic performance in high school students". In this study, which included 250 high school students, academic achievement was significantly predicted by the self-evaluation and self-regulation components of self-efficacy, which accounted for 10% of the variation in academic performance [14].

The null hypothesis that was mentioned in this study was: There is no relationship between personality traits, self-efficacy, and academic performance". From the Spearman rank correlation and Linear regreesion, the null hypothesis can be rejected as some of the personality traits have correlation with self-efficacy and academic performance. It can also be revealed that some of the personality traits are considered as predictor of academic performance.

To improve generalisability, future studies should strive to use bigger and more varied samples. It is advised to use longitudinal designs in order to identify causal pathways. Further insights into how students view personality and self-efficacy in their academic lives may also be obtained by combining qualitative data from focus groups or interviews. Furthermore, investigating the mediating or moderating functions of additional psychological concepts, like learning styles, motivation, or resilience, may improve our comprehension of the intricate relationships affecting academic achievement.

5. Conclusion

From Spearman rank correlation, the study found that Neuroticism as a personality trait did not have significant relationship with self-efficacy and academic performance. Extraversion as a personality trait had significant relationship with self-efficacy and academic performance. Openness as a personality trait did not have significant relationship with self-efficacy and academic performance. Agreeableness as a personality trait did not have a significant relationship with self-efficacy and academic performance. Conscientiousness as a personality trait had a significant relationship with self-efficacy and academic performance.

According to the regression analysis, some of the personality traits were considered as predictor of academic performance and other personality traits are not considered as predictor of academic performance. Neuroticism, Openness, and Agreeableness as personality triats are not considered as a

predictor of academic performance. Extraversion and Conscientiousness as personality trait was considered as a predictor of academic performance. Self-efficacy is also considered as a predictor of academic performance. Based on this analysis by Spearman rank correlation and Linear regression, the null hypothesis can be rejected.

Implications of the findings for enhancing instructional strategies and fostering student growth are significant. Children's academic performance can be enhanced and their sense of responsibility increased by incorporating lessons on time management, goal-setting, and organisation. Furthermore, students can be better equipped to handle difficulties in the classroom by developing their self-confidence through positive reinforcement, resilience training, and mentoring. Neuroticism's detrimental effects highlight the need for emotional and psychological support in the classroom. Programs for stress management and counselling can be established to lessen the negative effects of high neuroticism on academic performance.

Although the study's findings are instructive, it is important to acknowledge a number of limitations. Although the sample size offers enough information for rudimentary statistical analysis, it falls short in capturing the diversity of the entire student body. The results from self-report questionnaires may have been tainted by social desirability bias in addition to inaccurate self-evaluation answers. The cross-sectional design of the study restricts the ability to make inferences regarding causality. Longitudinal studies would be more helpful in tracking the long-term impacts of personality traits and self-efficacy on academic performance.

Abbreviations

KS	Kolmogorov-Smirnov
SW	Shapiro-Wilk
Stat	Statistics
Sig	Significance Value
Ne	Neuroticism
Ex	Extroversion
Op	Openness
Ag	Agreeableness
Co	Conscientiousness
SE	Self-efficacy
AP	ACADEMIC Performance
N	Total sample size
Sr	Spearman’s Rho
Cc	Correlation Coefficient
M	Model
C	Constant
Us’C	Unstandardized Coefficient
SC	Standardized Coefficient

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Conflicts of Interest

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Appendix

1. NEO Five Factor Inventory

NEO-Five Factor Inventory

Instructions: Using the scale below as a guide, write a number from beside each statement to indicate how much you agree with it.

1	2	3	4	5	6	7
Not True			*Somewhat*			*Very True*

__1. I am not a worrier.

__2. I like to have a lot of people around me.

__3. I don't like to waste my time daydreaming.

__4. I try to be courteous to everyone I meet.
__5. I keep my belongings clean and neat.
__6. I often feel inferior to others.
__7. I laugh easily.
__8. Once I find the right way to do something, I stick to it.
__9. I often get into arguments with my family and co-workers.
__10. I'm pretty good about pacing myself so as to get things done on time.
__11. When I'm under a great deal of stress, sometimes I feel like I'm going to pieces.
__12. I don't consider myself especially "lighthearted."
__13. I am intrigued by the patterns I find in art and nature.
__14. Some people think I'm selfish and egotistical.
__15. I am not a very methodical person.
__16. I rarely feel lonely or blue.
__17. I really enjoy talking to people.
__18. I believe letting students hear controversial speakers can only confuse and mislead them.
__19. I would rather cooperate with others than compete with them.
__20. I try to perform all the tasks assigned to me conscientiously.
__21. I often feel tense and jittery.
__22. I like to be where the action is.
__23. Poetry has little or no effect on me.
__24. I tend to be cynical and skeptical of other's intentions.
__25. I have a clear set of goals and work toward them in an orderly fashion.
__26. Sometimes I feel completely worthless.
__27. I usually prefer to do things alone.
__28. I often try new and foreign foods.
__29. I believe that most people will take advantage of you if you let them.
__30. I waste a lot of time before settling down to work.
__31. I rarely feel fearful or anxious.
__32. I often feel as if I am bursting with energy.
__33. I seldom notice the moods or feelings that different environments produce.
__34. Most people I know like me.
__35. I work hard to accomplish my goals.
__36. I often get angry at the way people treat me.
__37. I am a cheerful, high-spirited person.
__38. I believe we should look to our religious authorities for decisions on moral issues.
__39. Some people think of me as cold and calculating.
__40. When I make a commitment, I can always be counted on to follow through.
__41. Too often, when things go wrong, I get discouraged and feel like giving up.
__42. I am not a cheerful optimist.
__43. Sometimes when I am reading poetry or looking at a work of art, I feel a chill or wave of excitement.
__44. I'm hard-headed and tough-minded in my attitudes.
__45. Sometimes I'm not as dependable or reliable as I should be.
__46. I am seldom sad or depressed.
__47. My life is fast-paced.
__48. I have little interest in speculating on the nature of the universe or the human condition.
__49. I generally try to be thoughtful and considerate.
__50. I am a productive person who always gets the job done.
__51. I often feel helpless and want someone else to solve my problems.
__52. I am a very active person.
__53. I have a lot of intellectual curiosity.
__54. If I don't like people, I let them know it.
__55. I never seem to be able to get organized.
__56. At times I have been so ashamed I just wanted to hide.
__57. I would rather go my own way than be a leader of others.
__58. I often enjoy playing with theories or abstract ideas.

__59. I necessary, I am willing to manipulate people.
__60. I strive for excellence in everything I do.

2. General Self-efficacy Scale

General Self-efficacy Scale

Table 9. *Represents General Self-Efficacy Questionnaire.*

	Not at all true	Hardly true	Moder-ately true	Exactly true
1. I can always manage to solve difficult problems if I try hard enough	□	□	□	□
2. If someone opposes me, I can find the means and ways to get what I want.	□	□	□	□
3. It is easy for me to stick to my aims and accomplish my goals.	□	□	□	□
4. I am confident that I could deal efficiently with unexpected events.	□	□	□	□
5. Thanks to my resourcefulness, I know how to handle unforeseen situations.	□	□	□	□
6. I can solve most problems if I invest the necessary effort.	□	□	□	□
7. I can remain calm when facing difficulties because I can rely on my coping abilities.	□	□	□	□
8. When I am confronted with a problem, I can usually find several solutions.	□	□	□	□
9. If I am in trouble, I can usually think of a solution	□	□	□	□
10. I can usually handle whatever comes my way.	□	□	□	□

3. Academic Performance Scale

Academic Performance Scale

Name: Date:

Instructions: Please answer each question using the 5-point scale to answer each question so that it accurately reflects what you do or have done as a student. Be as honest as possible because the information can be utilized to discover areas of strength.

Scale:

SA - STRONGLY AGREE; A – AGREE; N – NEUTRAL; D – DISAGREE; SD - STRONGLY DISAGREE

Table 10. *Represents Academic Performance Scale.*

Questions	SA	A	N	D	SD
1. I made myself ready in all my subjects.					
2. I pay attention and listen during every discussion.					
3. I want to get good grades in every subject.					
4. I actively participate in every discussion.					
5. I start papers and projects as soon as they are assigned.					
6. I enjoy homework and activities because they help me improve my skills in every subject.					
7. I exert more effort when I do difficult assignments.					
8. Solving problems is a useful hobby for me.					

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