Relationship between Personality Traits and Academic Achievement among NCE Students

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Abstract

The study was designed to investigate the relationship between personality traits and academic achievement among NCE students of Kashim Ibrahim College of Education Maiduguri. Eighty one (81) students consisting of forty five (45) male and thirty six (36) female students were purposively selected. Two instruments were used to gather information. A profoma and the Big Five Personality questionnaire were used in this study. The proforma was used to obtain the cumulative grade point average (CGPA) of the students and the questionnaire was used to measure the personality trait of the students. Data collected were analyzed using multiple regression analysis. Results of the study revealed that personality trait is a predictor of students’ academic performance. The result further revealed that consciousness and agreeableness are the best predictors of students’ academic achievement.

Keywords: Personality, Academic achievement, Big Five Model, CGPA

Introduction
Academic achievement has always been considered to be a very important factor in the educational life of an individual, because good academic record over years predicts future success of a person because it occupies a very important place in education as well as in the learning process Singh (2014). Many researchers have linked academic performance with personality traits of an individual. Personality has been recognized as a determining factor on how people learn (Lawrence, 1997; Myer et al, 1998).

This study focused on the relationship between the Big Five traits (Conscientiousness, Extraversion, Agreeableness, Neuroticism and Openness to Experience) described by the Five Factor model of personality (Costa and McCrae, 1992 by John, Srivastava, 1999) and students’ academic performance among college students. Personality traits are imperative aspect which is subjective to students’ academic achievement. According to Lim and Abdullah (2012), personality is a multidimensional psychological construct that influence students’ academic performance and how students were being involved in learning. O’Conner and Paunonen (2007) found that personality of an individual has significant influence on his academic performance which forms the behavior of a person that will affect a person’s learning habit which will lead to academic success (Soraya hakimi et al. 2011). This shows the importance of the Big-Five personality traits in predicting students’ academic achievement. It is against this background that the study aimed at investigating the relationship between personality trait (Big Five) and students’ academic achievement among NCE students.

**Literature Review**

Numerous studies have shown that there was correlation/relationship between personality traits and students academic performance. Nye, Orel, Kochergina (2013) Carried out a study on which Big Five personality traits are associated with academic performance among a sample of Russian university students using results from the Unified State Examination (for university admissions) and their current grade point averages as measures of academic performance. Results showed that Introversion, Agreeableness, Neuroticism, and Openness to experience have observable ties to academic performance.
According to Jensen (2015), Openness is associated with learning and general knowledge while conscientiousness is associated with academic achievement. In a study conducted by Martey and Aborkwa-larbi (2016) on the assessment of the Impact of Personality Traits on Academic Performance of Tertiary Students in Ghana, the target population of the study comprised of students who have studied a minimum of three semesters at selected tertiary institutions in Ghana. Descriptive statistics and regression analysis were used to measure the effect of the personality traits on academic performance. The findings revealed that, there was a positive relationship between academic achievements of tertiary student’s and conscientious, agreeable and openness. However there was no significant relationship between extroversion and neuroticism on academic performance.

Abolmaali et al., (2014) conducted a study on the relationship between personality trait and academic performance in mathematics. Their results revealed that consciousness and openness are the predictors of academic achievement. Among the five personality traits, consciousness was the best predictors of academic achievement (Olowookere et al., 2017). Chamorro-premuzic and Furnham (2003) determined the relationship between personality trait and students academic performance among University students in University College London. The finding revealed that consciousness has a positive influence on students’ academic performance while extraversion and neuroticism have negative relationship with academic achievement.

Novikova and Vorobyeva (2017) investigated the influence of the Big Five factor on academic performance of university students of the linguistic department. Their result shows that consciousness and openness are more closely connected with the peculiarities of the students’ academic achievement in different fields of study. Karatas (2015) carried out a research on the correlation between personality and students academic achievement among University students. His result showed that consciousness has a positive correlation with academic performance.

Eyong, David and Umoh (2014) examined the effect of personality on academic motivation and academic performance. Participants were college students who voluntarily participated in the study. They were asked to complete a personality questionnaire (NEO-FFI), and an academic motivation questionnaire (AMS-C
28, included GPA and demographic data). Their results showed that there was a positive relationship between openness to experience and conscientiousness with academic performance.

Eyong, David, Umoh (2014) conducted a study to determine personality traits on academy achievements of secondary school students in Cross River State. Two research questions and hypotheses were tested at .05 levels of significance to guide the conduct of the study. The research design used was casual-comparative or ex post facto. The population of the study consisted of 13, 838 SSI students in all 239 public secondary schools throughout Cross Rivers State. A total of 7 LGAs were randomly drawn out of 23 and 20 schools were randomly selected, from which a sample of 8530 SSI students was finally drawn. The instrument adopted for the study was the 44-item standardized questionnaire known as the big five personality model by Robert McCrae and Paul Costa (1999) Pearson moment correlation coefficient (r) and the reliability indices obtained were, 0.68, and 0.62 respectively for conscientiousness and agreeableness. Mean and standard deviation were used to answer the research question while independent sample t-test was used to test the hypothesis. Their result showed that there was significant difference between the achievements of students with high level of conscientiousness and agreeableness, and those with low levels of the traits.

Al Naim et al., (2016). Conducted a study on Personality Traits and Academic Performance of Medical Students in Al-Ahsa, Saudi Arabia, their study was a Cross-sectional study among 416 medical students of College of Medicine, King Faisal University, Saudi Arabia. A self-administered Big Five Inventory (BFI) questionnaire was distributed and responses were collected. Their results showed that ‘Conscientious Personality’ trait showed highly significant (p = 0.0001) association with high GPA (4.5-5). However, their results revealed no significant association between other personality types (Openness, Extraversion, Agreeable, and Neuroticism) and GPA.

Materials and Methods
Purposive sampling technique was used to select a sample of 81 students consisting of forty five (45) male and thirty six (36) female students (age 18 – 35) in English department. For the purpose of the study, the participants were divided into three groups, low and high achieving groups. Low achieving group
refers to students who obtained Cumulative Grade Point Average (CGPA) of 2.49 and below, and high achieving group refers to students who obtained CGPA of 3.5 and above while students with CGPA 2.50-3.49 are referred to as average students. Two instruments were used in this study: A proforma and a questionnaire. A proforma was used to collect data on students’ academic performance while personality questionnaire was used to get information on the personality of the students. Data collected from the questionnaire and the proforma were analyzed using Multiple regression analysis.

**Results**

Summary of the multiple regression analysis on the relationship between personality and academic performance

<table>
<thead>
<tr>
<th>Sources of variation</th>
<th>Df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>5</td>
<td>42.91447554</td>
<td>8.582895107</td>
<td>54.63876324</td>
<td>0.00</td>
</tr>
<tr>
<td>Residual</td>
<td>75</td>
<td>11.78132693</td>
<td>0.157084359</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>54.69580247</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results from table 1 revealed that personality trait is a significant predictors of students academic achievement in English language among college of education students with \( p - value = 0.00 \) which is less than the level of significant \( \alpha = 0.05 \). The R-square value of 0.7846 indicated that 78.46% of the students’ academic performance is being determined by their personality trait.

Table 2: Summary of the regression coefficients

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.4074</td>
<td>0.4371</td>
<td>0.9318</td>
<td>0.3543</td>
</tr>
<tr>
<td>Extraversion</td>
<td>-0.0034</td>
<td>0.0036</td>
<td>-0.9417</td>
<td>0.3493</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>0.0386</td>
<td>0.0036</td>
<td>10.7291</td>
<td>0.0000</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>-0.0011</td>
<td>0.0055</td>
<td>-0.1950</td>
<td>0.8458</td>
</tr>
<tr>
<td>Consciousness</td>
<td>0.0079</td>
<td>0.0033</td>
<td>2.3986</td>
<td>0.0018</td>
</tr>
</tbody>
</table>
Results from table 2 revealed that among the personality traits, consciousness and agreeableness are significant predictors of academic performance with p-values 0.030 and 0.0018 respectively while other personality traits such as extraversion \((p - value = 0.3493)\), Neuroticism \((p - value = 0.8458)\) and openness to experience \((p - value = 0.959)\) have no significant influence on students’ academic performance among NCE students.

**Discussion**

The result showed that consciousness and agreeableness are significant predictors of students’ academic performance. This finding is in line with the finding of Jensen (2015) who found that openness is associated with learning and general knowledge while conscientiousness is associated with academic achievement. The study agrees with the finding of Martey and Aborkwa-larbi (2016) whose result showed that consciousness and agreeableness have positive relationship with students’ academic performance.

Nye, Orel, Kochergina (2013) Carried out a study on which Big Five personality traits are associated with academic performance among a sample of Russian university students using results from the Unified State Examination (for university admissions) and their current grade point averages as measures of academic performance. Results showed that Introversion, Agreeableness, Neuroticism, and Openness to experience have observable ties to academic performance while extroversion and neuroticism on academic performance have negative relationship with students’ academic performance. The study also concurred with the finding of Abolmaali et al., (2014) whose finding revealed that consciousness and openness to experience are the predictors of academic achievement. Their result also showed that among the five personality traits, consciousness was the best predictors of academic achievement (Olowookere et al., 2017). The finding also tallies with the findings of (Chamorro-premuzic and Furnham, 2003; Novikova and Vorobyeva, 2017; Karatas, 2015).

**REFERENCES**


