INFLUENCE OF PERSONALITY TRAITS ON ACADEMIC PERFORMANCES AMONG STUDENTS OF UMARU MUSA YAR'ADUA UNIVERSITY, KATSINA

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Abstract

This study investigated the influence of personality traits on academic performance among students of Umaru Musa Yar'adua University, Katsina. The study has five objectives, five research questions and tested five hypotheses, were formulated and tested at .05 significance levels. Descriptive survey research design was used. The research was conducted upon a population of 270 students of 300 level that offered educational technology in 2015/2016 academic session. The researcher used random sampling technique and sampled 159 students of 300 level science education of Umaru Musa Yar'adua University, Katsina in the study. The researcher used modified big five personality inventory (BFPI) consisting 50 items to measure personality of 300 level science education students that offered educational technology course 2015/2016 academic session, statistical package of social science (SPSS) version 20.0 was used and data obtained were analysed using correlation coefficient statistics. The research instrument was validated and reliability of the research instrument was established at .774, which indicated the instrument was reliable. The hypotheses were analysed using Pearson's Product Moment Coefficient (PPMC) at .05 significant level. The researcher found that, there is significant influence of agreeableness personality trait and conscientiousness personality trait on the academic performance of 300 level students of educational technology of Umaru Musa Yar'adua University, Katsina. The researcher recommended that, there is need for the Umaru Musa Yar'adua University Katsina lecturers to assists students to develop agreeable personality trait among their students in order to prevail in their academic performance and behave sympathetic, trusting, cooperative, modest and straight forward on their studies.

Keywords: Personality, Academic Performance, Personality Traits

Introduction

Academic performance is an important issue among students, parents, school administrators and community especially students of higher institution in which students graduated with different classes of degrees. The characteristics of personality include: personality is something unique and specific, exhibits self-conscientious, collection of traits, subjected to disorganisation and disintegration leading to severe disorder, product of heredity and environment, synonymous with one's character, learning and acquisition of experiences contribute toward growth and development, emotional disposition, and viewed from individuals ego.

The term personality has been defined by different psychologists, each focuses on different angle. According to Aggarwal (2007), described the term personality as Latin word "person" means masks worn by the Roman actors. Another definition by Mangal, (2011), defined as the sum total of all the biological innate dispositions, impulses, tendencies, appetite, and instincts of the individual.

Big Five Personality Trait exist in recent years, McCrae and Costa (2003), have used factor analysis to arrive at a simpler five factor model of personality traits. McCrae and Costa maintained that most personality traits are derived from just five higher order traits that have come to be known as the big five personality traits. These are:

Extraversion: people who were score high in extraversion are characterised as outgoing, sociable, upbeat, friendly, assertive, and gregarious.

Neuroticism: people who were score high in neuroticism tend to be hostiles, anxious, insecure, venerable, and self-conscious. In some traits model, this trait is called negative emotionality. Those who scored high in neuroticism tend to overreact more in response to stress than others (Mroczek& Almeida, 2004).

Openness to experience: this trait associated with curiosity, artistic sensitivity, vivid fantasy, imaginativeness, unconstitutional attitudes of people, and flexibility. McCrae (1996) quoted in Weiten,(2007), maintains that its importance has been under estimate citing evidence that openness fosters liberalism, he argues that this trait is the dominant key determinant of people's political attitudes and ideology.

Agreeableness: people who score high in agreeableness tend to be trusting, cooperative, sympathetic, modest and straight forward. People who score at the opposite end of this personality dimension are characterised as antagonistic, aggressive, and suspicious. Agreeableness may have it childhood temperament (Weiten, 2007).

Conscientiousness: people with this personality trait tend to be discipline, well organise, diligent, punctual, and dependent. It is also called constraint in some models of trait, which is associated with living longer.

Academics like Shamsashuddin and Rao (2008), have put forward a lot of reasons why these disparities in academic performances exist; some are of view that, personality traits are instrumental to academic performances and others are of the view of internal and external forces. Our attentions have been focused on the external factors such as type of school, teaching methods, school location, instructional materials, teacher experience and so on (WAEC, 2005).

The Big Five approach to personality traits is an appropriate model to use investigating the correlations between academic performance and personality traits (DeYoung, 2010). This seems plausible because of their stability over time, universality, biological bases (Costa & McCrae, 1992a), and the structural organisation of the factors (DeYoung, 2010). Personality traits predict and are associated to important outcomes and behaviours of an individual's life (Xu & Potenza, 2012). One such important outcome is academic achievement, thus, one way to understand academic achievement is through the neurobiological mechanisms of personality traits (Veroude et al., 2013).

Big Five personality traits have gained a widespread acceptance regarding the science of personality traits (DeYoung & Gray, 2009). is as hierarchical model of personality traits with five basic factors as mentioned earlier (Costa &McCrae, 1992a). Moreover, there is considerable agreement among theories that specific functions are associated with the Big Five, extraversion is sensitive to reward and positive affect; neuroticism manifests to be sensitive to punishment and negative affect; agreeableness is the tendency to act altruistic vs. exploiting others; conscientiousness is the ability to top-down regulate behaviour in order to pursue non-immediate goals and to follow rules; openness to experience manifests the tendency to explore, detect and enjoy abstract and sensory information (DeYoung, 2010).

Academic achievement is most commonly operationalized with grade point average (GPA) in research, which is the mean grade of the courses that are included in the final grade (Richardson et al., 2012). The benefits of GPA is that the measure is objective, reliable and temporally stable (Bacon & Bean, 2006),

Parents and guardians spent a lot of money in order to secure good schools either for their children and those who can afford it even invest on education abroad as they believe this will enhance achievement, and which in turn gives an added advantage in terms of securing gainful employment.

Psychologists like McCrae and Costa (2003) have attempted to identify the major predictors of individual academic achievement. Factors like personality traits (agreeableness, conscientiousness, extroversion, neuroticism, and openness to experience), gender, self-concept, study habit, maturation, and home background among others affect academic performances of students. Daminabo (2008), defines personality as the total characteristics that differentiate people or stability of a person's behaviour across different situations. Guilford in Agbakwuru (2000), also defined personality as any distinguishable relatively enduring way in which an individual varies from others.

The researchers observed massive failures in the last result released on 300 level students in instructional technology in which the researchers attributed the failure to the personality traits of these students.

Statement of the Problem

Despite the effort made by the University Management and academic staff to ensure the success of all students, most of them continue to fail especially when semester examinations are released. It was observed that some students obtained lower grades; assumed that it might be attributed to student's personality traits which make it difficult to control their attention and read to attain higher grades.

Personality refers to the sum total of individual activities for a long period of time, may be years or certain period of time. Psychologists have made tremendous attempts to conducts researches on personality of the students, most of them suggested personality as traits. Traits refers to the personality characteristics of an individuals which differed from others.

McCrae and Costa (1992), proposed Big Five Personality traits Theory under these traits: Agreeableness, Conscientiousness, Extroversion, Neuroticism and Openness to experience. These traits were attributed with lower and higher academic performances of students.

As a result of this, the researchers wish to conduct a research to point out personality traits that can affect higher and lower student's academic performances.

Research Objectives

The main objectives of the research include:

To find out the relationships between:

1. To find out the relationships between Agreeableness and academic performances among students of Umaru Musa Yar'adua University, Katsina

2. To find out the relationships between Conscientious and academic performances among students of Umaru Musa Yar'adua University, Katsina

3. To find out the relationships between Extroversion and academic performances among students of Umaru Musa Yar'adua University, Katsina

4. To find out the relationships between Neuroticism and academic performances among students of Umaru Musa Yar'adua University, Katsina

5. To find out the relationships between Openness to experience and academic performances among students of Umaru Musa Yar'adua University, Katsina.

Research Questions

What is the relationship between:

1. Agreeableness and academic performances among students of Umaru Musa Yar'adua University, Katsina?

2. Conscientious and academic performances among students of Umaru Musa Yar'adua University, Katsina?

3. Extroversion and academic performances among students of Umaru Musa Yar'adua University, Katsina?

4. Neuroticism and academic performances among students of Umaru Musa Yar'adua University, Katsina?

5. Openness to experience and academic performances among students of Umaru Musa Yar'adua University, Katsina?

Research Hypotheses

There is no significant relationship between:

1. There is no significant relationship between Agreeableness and academic performances among students of Umaru Musa Yar'adua University, Katsina

2. There is no significant relationship between Conscientious and academic performances among students of Umaru Musa Yar'adua University, Katsina

3. There is no significant relationship between Extroversion and academic performances among students of Umaru Musa Yar'adua University, Katsina

4. There is no significant relationship between Neuroticism and academic performances among students of Umaru Musa Yar'adua University, Katsina

5. There is no significant relationship between Openness to experience and academic performances among students of Umaru Musa Yar'adua University, Katsina.

Methodology

The study adopted descriptive research design of survey type. The research population comprised all 300 level science education students that offer educational technology in 2015/2016 academic session in the department of education, Umaru Musa Yar'adua University Katsina. According to the directorate of examination and registration, there is a total number of 270 level 300 science education students that offered educational technology in 2015/2016 academic session. The distribution is presented below:

Table 1. Population of 300 Level Science Education Students

SN	Course Combinations	Population	Male	Female
1.	Physics Education	44	38	6
2.	Chemistry Education	37	27	10
3.	Biology Education	75	44	31
4.	Geography Education	77	66	11
5.	Mathematics Education	37	35	2
	Total	**270**	**210**	**60**

Source: (Directorate of Examination and Registration, UMYU, Katsina, 2015)

Sample and Sampling Technique

The researcher randomly sampled 159 science education students of 300 levels who offered educational technology in 2014/2015 academic session in the department of education, Umaru Musa Yar'adua University, Katsina using formula: population of the course combination by total population multiply by sample, i.e. (44÷270×159=44). The researcher choice of 159 from 270 students is in line with recommendations of Krejcie and Morgan (1970) in their table of random numbers who recommended that for a population of 270, researcher is free to select 159 students as adequate enough to form a sample of the study.

The distribution of the sample is presented in the table below:

Table 2. Samples Drawn from 300 Level Science Education Students

SN	Course Combination	Sample	Male	Female
1	Physics Education	26	20	6
2	Chemistry Education	21	14	8
3	Biology Education	44	24	20
4	Geography Education	45	34	11
5	Mathematics Education	22	20	2
	Total	**159**	**112**	**47**

(Krejcie and Morgan, 1970)

The research adopted and modified big five personality questionnaire consisting of 50 item questions to measure student's personality among students and the researcher used 2015 first semester raw scores results of educational technology to measure academic performances of 300 level students.

The researcher distributed both big five personality traits questionnaires and collected back after filling them with the help of trained research assistance. The researcher also collected first semester 2015/2016 academic session raw scores on educational technology of the sampled students from directorate of examination and registration unit.

The researcher used Pearson's Product Moment Correlation (PPMC) technique for hypotheses 1, 2, 3, 4, & 5, to analyse the results obtained.

Results

This section presented data analysis results.

There is no significance influence of extroversion, neuroticism and openness to experience on the academic performances of 300 level science education students in educational technology.

There is significance influence of agreeableness and conscientiousness on the academic performance of 300 level science education students in educational technology.

H01: There is no significance relationship of agreeableness on academic performance of 300 level science education students in educational technology. This was tested using PPMC.

Table 3. Relationship of Agreeableness on Academic Performance of 300 Level Science Education Students in Educational Technology

Variables	N	Mean	SD	r -value	p -value
Agreeableness	159	34.9308	6.32868		
				.363	.000
Academic Performance	159	50.8050	11.10165		

Key: SD= Standard Deviation, N= Total Number of Students, PPMC: Pearson Product Moment Correlation.

The above table shows the mean of 34.9308, standard deviation of 6.32868, r=value of .363 and p=value of .000. The p=value of .000 is less than .05; this indicated that the hypothesis is rejected. This showed that there is significance relationship of agreeableness on the academic performance of 300 level Science Education Students in Educational Technology.

H02: there is no significant relationship of conscientiousness on Academic performance of 300 level science education students in educational technology.

Table 4. Relationship between Conscientiousness on Academic Performance of 300 Level Science Education Students in Educational Technology

Variables	N	Mean	SD	r - value	p -value
Conscientiousness	159	34.8616	6.54147		
				.424	**.000**
Academic Performance	159	50.8050	11.10165		

Key: Deviation, N = Total Number of Students, PPMC = Pearson Product Moment Correlation.

Conscientiousness was found to have mean of 34.8616, standard deviation of 6.54147, r = value of .424 and p= value of .000. The p = value is less than .05; this indicated that the hypothesis is rejected. This showed that there is significant, relationship of conscientiousness on the academic performance of 300 level science education students in educational technology.

Ho3: There is no significant on extroversion on academic performance of 300 level science education students in educational technology.

Table 5. Relationship between Extroversion on Academic Performance of 300 level science education students in educational technology

Variables	N	Mean	SD	r -value	p -value
Extroversion	159	29.7547	4.92310		
				.010	.900
Academic Performance	159	50.8050	11.10165		

Key: SD = Standard Deviation, N = Total Number of Students, PPMC: Pearson Product Moment Correlation.

Extroversion was found to have mean of 29.7547, standard deviation of 4.92310, r = value of .010 and p = value of .900. The p = value of .900 is greater than .05, this indicated that the hypothesis is retained. This showed that there is no significant relationship of extroversion on the academic performance of 300 level science education students in educational technology.

Ho4: There is no significant relationship of neuroticism on academic performance of 300 level science education students in educational technology.

Table 6. Relationship between Neuroticism on Academic Performance of 300 level science education students in educational technology

Variables	N	Mean	SD	r -value	p -value
Neuroticism	159	27.5912	6.32177		
				.073	.364
Academic Performance	159	50.8050	11.10165		

Key: SD = Standard Deviation, N = Total Number of students, PPMC: Pearson Product Moment Correlation.

Neuroticism was found to have mean of 27.5912, standard deviation of 6.32177, r=value of .073 and p=value of .364. The p=value .374 is greater than .05; this indicated that the hypothesis is retained. This showed that, there is no significance relationship of neuroticism on academic performance of 300 level science education students in educational technology.

Ho5: There is no significance relationship of openness to experience on academic performance of 300 level science education students in educational technology.

Table 7. Relationship between Openness to experience on Academic Performance of 300 level science education students in educational technology

Variables	N	Mean	SD	r -value	p -value
Openness	159	32.7736	5.62648		
				.027	.733
Academic Performance	159	50.8050	11.10165		

Key: SD = standard deviation, N = Total Number of students, PPMC: Pearson Product Moment Correlation.

Openness to experience as found to have mean of 32.7736, standard deviation of 5.62648, r = value .027 and p = value of .364. The p = value .364 is greater than .05, this indicated that the hypothesis is retained. This showed that there is no significance relationship of openness to experience on the academic performance of 300 level science education students in education technology.

Discussion
Base on the research hypotheses formulated, the result were discussed as follows:
From the result correlated using Pearson product Moment Coefficient, agreeableness and conscientiousness were found to be rejected because p value is greater than .05 and findings was in line with Poropat (2009); Trapmann et al; (2007), and O' connor et al; (2007), which said conscientiousness had significant positive correlation with academic performance of Russian students, Furnham et al; (2009), which found in an American college students showed positive relationship between conscientiousness, agreeableness on students' academic performances.
Extroversion, Neuroticism, Openness to experience were correlated using Pearson Product Moment Coefficient, found the p values were less than .05, this showed that the hypotheses retained. These findings were contrary with Furnham et al; (2009), which found a significant positive correlation between extroversion and student's academic performances, Hakimi et al; (2011), found negative correlation between extroversion and student's academic performances, Poropat, (2009), Trapmann et

al; (2007); O'Connor et al; (2007), found positive correlation between student's openness to experiences and their academic performances.

Conclusion

Base on the findings, it was concluded that agreeableness, conscientiousness influenced student's performances while neuroticism, extroversion and openness to experience have no influences on the student's academic performances.

Recommendations

There is need for the Umaru Musa Yar'adua University Katsina lecturers to assist agreeable students by emphasising them to develop agreeable personality traits in their academic peruses so as to have an academic success and behave sympathetic, trusting, cooperative, modest and straight forward on their studies.

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