



## **Influence of Students Personality Traits on Academic Achievement of Senior Secondary Schools in Rivers State**

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### **ABSTRACT**

This study examined the Influence of Students Personality Traits on Academic Achievement of Senior Secondary Schools in Rivers State. The descriptive research design was adopted for the study. The population of the study was 66,164 students all in Rivers State. A sample size of 399 students was selected using the Taro Yamane formular. A structured questionnaire titled; Personality Traits Questionnaire was used as the instrument to measure was validated by the supervisor and two other experts in the field of measurement and evaluation. A reliability coefficient of 0.86 was obtained from the pilot study using the Pearson's Product Moment Correlation. The data collected was analyzed using descriptive statistics of mean and standard deviation, and inferential statistic of Pearson's Product Moment Correlation Analysis to answer the research questions and to test the formulated hypotheses at 0.05 level of significance respectively. Five research questions were stated and five hypotheses formulated for the study. It was found that openness, agreeableness and conscientiousness significantly relate to academic achievement of a senior secondary school students in Rivers State. The study concluded that openness, extraversion and conscientiousness significantly relate to academic achievement of senior secondary school students in Rivers State. It was therefore, recommended that: Students having conscientiousness personality trait can produce better result in their academics, having agreeableness personality trait, teacher may guide the students towards English, Chemistry and Islamic Education as optional subjects for better achievements, teachers may guide the students to take General Science (Arts) as optional subject at secondary level.

**Keywords:** Influence, Students, Personality Traits, Academic Achievement, Senior, Secondary Schools, Conscientiousness, agreeableness, openness

### **INTRODUCTION**

Academic achievement is a major issue among students, teachers, parents, school administrators, and the community at large. Attempts have been made by researchers to unravel the complexities surrounding academic achievement. Psychologists have put forward a lot of reasons why these disparities in achievement exist (Colman, 2013). A lot of attention has been paid on external factors such as type of school, teaching methods, school location, instructional materials, teachers experience, and so on (WAEC, 2015) as reasons for disparities in academic achievement of students.

Many spend lots of money in order to secure good schools either for their children or themselves 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. Opinions vary as to

why some students excel academically while others appear to be underachievers. Many psychologists have consistently attempted to identify the major predictors of individual academic achievement (Adeola, Bolarinwa & Olafere, 2012).

Factors such as intelligence, self-concept, gender, study habit, maturation, home background, amongst others, just to mention a few, have been extensively explored as being responsible for academic achievement, especially in secondary school students (Guliford, 2019). Other factors that have been researched into in the past include: child rearing patterns, peer group influence, socio-economic background and learning environment. Another major factor that is believed to be responsible for academic achievement of students is their personality traits. How true is this? Traits Theorists have tried to identify the major traits that characterize personality. Notable among these theorists are Sigmund Freud in the early 1900's, Gordon Allport (2011).

According to Daminabo (2018), personality is the sum total of the characteristics that differentiate people, or the stability of a person's behaviour across different situations. In other words, it means those qualities the individual is noted for. Traits are enduring dimensions of personality characteristics which differentiates people from one another (Colman, 2013). Traits are therefore the sum total of stable characteristics in a person across different times and situations, which make him or her unique or distinct from others. This agrees with the definition by Mischel (2011) which referred to personality traits as consistent differences between the behaviour characteristic of two or more people. It is also defined as any distinguishable, relatively enduring way in which one individual varies from another (Guliford, 2019). This personality trait varies as many authors such as McCrae and Costa (1987) referred to them as the big five. However, there has been an increasing interest in the big five personality traits and the role they play as regards academic achievement of students. Of particular interest is the role that these traits play in the academic achievement of secondary school students. These traits, popularly known as the 'Big Five' include conscientiousness, agreeableness, neuroticism, openness to experience, and extraversion. The acronym CANOE is used to describe them. These personality traits affect academic achievement in students, either positively or negatively. The results of the 2010 May/June West African Senior School Certificate Examination (WASSCE) showed that only 337,071 candidates, representing 24.94 per cent, out of the 1,351,557 candidates who wrote the examination obtained five credits and above, including English Language and Mathematics (David, 2010). The results showed a marginal one per cent lower than last year's result. But 77,168 others could not have their results based on reports of examination malpractice.

It should be recalled that in the May/June 2009 examination, only 356,981 candidates representing 26 per cent of the 1,373,009 students who sat for the examination obtained five credits. Also, the November/December examination meant for private candidates in 2011 recorded a similar poor performance. Out of the 342,433 candidates who took the examination, only 106,413 or 31 per cent had five credits, even though the number of candidates is significantly lower. The worst result so far was recorded in the May/June examination of 2012. Out of a total of 1,369,142 candidates that sat for the examination, only a meager 188,442 representing 13.76 per cent obtained five credits and above. The truth is that once a candidate fails to obtain the required five credits in the first attempt, he or she is bound to retake the examination to make up the deficient subjects. Failure to make up those subjects effectively shuts the candidate out of university admission. It is no longer news that the public school system has collapsed.

Consequently, many parents who can afford money to re-register their children take their wards to private schools. The private schools are not necessarily better. This situation has unpleasant implications for the youths and the future of the country. These results have shown a steady drop in achievement and this trend has continued despite efforts by psychologists, educationists and all concerned to effect any meaningful change. Thus, in a desperate bid to pass by all means, examination malpractice has been encouraged in varying degrees.

Agreeableness describes one who is sympathetic, trusting and cooperative. Students with high scores on agreeableness are selfless, flexible and pleasant. Such students work with others easily with little or no friction. Those scoring low on this trait however find it difficult to get along with others. Low scores are

expected to affect academic achievement negatively, while high scores enhance academic achievement of students. Agreeableness refers to the degree with which an individual differs with others. This trait represents personality characteristics as cooperative, softhearted, tolerant, forgiving, altruistic, emotionally supportive, courteous, good natured, and flexible (Barrick & Mount, 2011)

Openness to experience refers to individuals who tend to be creative, imaginative, and curious to experience new things amongst other things. Openness to experience includes traits like imaginative, cultured, curious, original, broad minded, intelligent and artistically sensitive (Barrick & Mount, 2011). According to McCrae and Costa (2018) intelligence has a positive relationship with openness. Besides a research conducted by Ackerman and Heggstad (2017) concluded that openness has the highest correlation with intelligence. In the same research they also found that openness did not have the highest correlation with academic performance. Extraversion trait refers to the level of comfort-ability with relationships to others. It represents personality characteristics as active, assertive, talkative, outgoing, social, gregarious, energetic, surgency, and ambitious. These people are good in active communication and with full of positive energy (Goldberg, 2011).

The abysmal performance of students in Senior Secondary School Certificate Examination according to Adeola, Bolarinwa and Olaferé (2012), has been a source of concern to governments, parents, and examination bodies. Excuses ranging from inadequate equipment and facilities, poor teacher pedagogy, content knowledge, low job motivation, examination centered evaluation, the use of instructional materials (textbooks) by teachers and students and a host of others have been given as reasons for students' poor performance academically. Given the above, it became imperative for the researcher to investigate the relationship between personality traits and academic achievement of students of senior secondary schools in Rivers State.

### **Statement of the Problem**

The problem of under-achievement has assumed a worrisome dimension in the Nigerian educational system. Being desperate to make it anyhow, students have devised various illegal means to succeed in examinations, even when they are not academically competent. Unfortunately, the system has buckled under the pressure: Examination malpractice has risen steadily to become a seemingly untamable monster. It is increasingly becoming difficult to equate competence of people with supposed academic performance as represented in their certificates.

Many candidates are unable to defend the results they supposedly acquired. And of course, this has consistently led to inability to compete effectively in the job market which has become a serious issue. Several factors have been researched into in the past as to the cause of poor students' performance, but there seem to be indications that some more hidden factors may be responsible. The desire to unravel the hidden factors has led to this study on the relationship between personality traits and students' academic performance in senior secondary schools in Rivers State.

### **Purpose of the Study**

The purpose of this study is to examine the Influence of Students Personality Traits on Academic Achievement of Senior Secondary Schools in Rivers State. Specifically, the objectives of the study are to:

- 1 Investigate the extent to which conscientiousness influence academic achievement of students in senior secondary schools in Rivers State.
- 2 Examine the extent to which agreeableness influence academic achievement of students in senior secondary schools in Rivers State.
- 3 Examine the extent to which openness influence academic achievement of students in senior secondary schools in Rivers State.

### **Research Questions**

The following research questions were raised to guide the study.

1. To what extent does conscientiousness influence academic achievement of students in senior secondary schools in Rivers State?
2. To what extent does agreeableness influence academic achievement of students in senior secondary schools in Rivers State?

- 4 To what extent does openness influence academic achievement of students in senior secondary schools in Rivers State?

### **Hypotheses**

The followings null hypotheses were formulated for the study and will be tested at 0.05 level of significance;

- 1 There is no significant difference in the mean rating of the respondents between influence of conscientiousness and academic achievement of students in senior secondary schools in Rivers State..
- 2 There is no significant difference in the mean rating of the respondents between influence of agreeableness and academic achievement of students in senior secondary schools in Rivers State.
- 3 There is no significant difference in the mean rating of the respondents between influence of openness and academic achievement of students in senior secondary schools in Rivers State.

## **REVIEW OF RELATED LITERATURE**

### **Conceptual Review**

This section will discuss in detail the various concept relating to personality and academic achievement.

#### **Concept of Personality Traits**

The trait theory within personality psychology, where individuals and their unique qualities are distinguished based on descriptions of different universal traits, is a common perspective on human personality (Costa & McCrae, 2018). Generally, a trait is understood as “a particular quality in your personality”. The more established technical definition of a personality trait is that it resembles the differences between individual’s frequency and intensity of thinking, behaving and feeling in certain ways (Fleeson & Gallagher, 2019). Even though, different researchers emphasize different aspects in defining traits. McCrae and Costa (2008) for example, focuses on the genotypical bases of traits, including cognitions and affects seen as covert expressions of the traits, whereas Goldberg (2011) focuses on the phenotypical bases of traits, being overt observable behaviours. There are even so, a considerable agreement that traits can be defined as patterns of behaviour, motivation, emotion and cognition which are relatively stable in an individual and not specific to a certain kind of social milieu or culture (McCrae & Costa, 2018).

Within personality psychology there are also lower levels which one can analyze personality with; characteristic adaptations and life stories. Characteristic adaptations have the function of filling in specific details in the individuality of humans for example, values, goals and coping strategies that are able to change over life time. Life stories have the function of integrating a person’s meaning in life, time and culture, through narratives for example stories of life, which reconstructs the past and imagines the future that also change over time, thus reflecting the development of personality (McAdams & Pals, 2016).

#### **- Openness to Experience (OE)**

This refers to individuals who tend to be creative, imaginative, and curious to experience new things amongst other things (Costa & McCrae, 2018). Openness to experience includes traits like imaginative, cultured, curious, original, broad minded, intelligent and artistically sensitive. According to McCrae and Costa (2018) intelligence has a positive relationship with openness. Besides a research conducted by Ackerman and Heggestad (2017) concluded that openness has the highest correlation with intelligence. In the same research they also found that openness did not have the highest correlation with academic performance.

#### **- Agreeableness (AG)**

This concept encapsulates constructs of sympathy, cooperativeness, and helpfulness towards others. It is described as the degree to which a person is good natured, warm and co- operative as opposed to irritable, uncooperative, inflexible, unpleasant and disagreeable (Nofle & Robins, 2017).

Poropat (2014) believed that high agreeableness facilitate learning and therefore agreeableness has a positive relationships associated with are believed. In relation to the impact of agreeableness on academic performance, De Raad and Schouwenberg (2016) argued that agreeableness have positive effect on academic performance because it encourages team work discussion. The relationship was later

affirmed by Vermetten (2011) who ascertained a positive relationship between agreeableness and effort and surface learning.

- **Conscientiousness (CN)**

It is the trait that is associated with diligence, self-discipline, punctuality, and general competence (McCrae & Costa, 2018). Conscientiousness is the personality dimension that correlates the strongest, out of all personality dimensions, with overall academic performance (Hurtz & Donovan, 2010). Steel (2017) found that conscientiousness has two attributes: sustained effort and goal-setting which contribute towards academic success. MacCann (2012) argued that conscientious students tend to have high confidence level which encourages greater learning.

**Concept of Academic Performance**

In today's education reform era, student achievement is king. We want to see our students succeeding. We want to see test scores rise. We want to know how we can better compete against foreign nations. We want assurances our students are getting a top-notch education measure by results, and not by processes. Academic achievement or (academic) performance is the outcome of education the extent to which a student, teacher or institution has achieved their educational goals (Hurtz & Donovan, 2010).

Academic achievement is commonly measured by examinations or continuous assessment but there is no general agreement on how it is best tested or which aspects are most important procedural knowledge such as skills or declarative knowledge such as facts. However, student achievement has become a hot topic in education today, especially with increased accountability for classroom teachers. The ultimate goal for any teacher is to improve the ability level and prepare students for adulthood. Defining student achievement and factors that impact progress is critical to becoming a successful teacher.

Student achievement measures the amount of academic content a student learns in a determined amount of time. Each grade level has learning goals or instructional standards that educators are required to teach. Standards are similar to a 'to-do' list that a teacher can use to guide instruction. Student achievement will increase when quality instruction is used to teach instructional standards (Hurtz & Donovan, 2010).

**Factors that influence Students' academic Achievement**

There are many variables or factors that influence student academic achievement, but the most critical are classroom instruction and learning disabilities. It is important to remember that all students do not learn the same way or at the same rate. Students are like leaves on a tree; there are no two exactly the same. Just as a leaf comes in unique colors, shapes and sizes, each student has their own unique learning style. You must use a variety of teaching methods and understand the background and individual needs of each student.

Classroom instruction is the most important factor that impacts student achievement. As a teacher you influence the quality of instruction, set expectations for learning, and measure the level of understanding. For example, when a standard is not presented in a way that a student can understand, or if it's taught in a way that is boring, it can be very difficult for a student to meet the required level of achievement (Hurtz & Donovan, 2010).

A good teacher will use strategies such as discussion among students, videos, or stories, to gain student attention and to support the learning process. You should constantly be thinking of ways to make learning fun and appropriate. For example, in looking at our to-do list, you may pre-pay for your cleaning to get a discount or join a friend to make the study session more interesting. Likewise, student achievement involves well-thought out strategies to improve the quality of learning!

A learning disability is a condition that causes a student to learn at a slower pace than students of the same age or grade level. A learning disability can make understanding of some standards more difficult, but it does not mean a student with this condition cannot achieve academically. It is important to remember that when it comes to student achievement, all students can learn!

## METHODOLOGY

The descriptive survey design was adopted for the study. Descriptive research is a branch of research that presents or reports information or data the way it is (Obilor, 2018). Descriptive survey gives a clear picture of a situation and it serves as a basis for most researchers in assessing the condition as a prerequisite for drawing conclusion. It attempts to describe or document current conditions or attitudes, that is, to explain what exists at the moment. This design was adopted because of its ability to ensure a representative outlook and provide a simple approach to the study of opinions, attitudes and values of individuals. It is considered appropriate because it establishes the opinions of learners on traits that could help in ensuring academic performance in public senior secondary schools in Rivers State. Population is all conceivable elements, traits, events, people, subjects or observation relating to a particular phenomenon of interest to the researcher (Nwaekeala & Abadom, 2018). The population of this study is 66,164 male and female students which is the total population of senior secondary school students in Rivers State (Rivers State Senior Secondary Schools Board, 2018). A sample size of 399 was obtained using the Taro Yamane formular. According to Maduabum (2017), a sample is the small portion of a given population. The sample size consists of both male and female students. In this study, the simple random sampling technique was applied proportionately. This is because the simple random sampling technique allows every member of a given population to be selected, and the researcher ensured that every student in the selected schools was given equal chance of being selected. An instrument was used for data collection in this study. It was a structured questionnaire titled: Personality Traits Questionnaire (PTQ) to be used to measure Personality Traits. The structured questionnaire was designed in a four-point Likert format: VHE= Very High Extent, HE= High Extent, ME= Moderate Extent, LE= Low Extent, response pattern. According to Asuru (2015), validity refers to the capacity of an instrument to measure what it is designed to measure. In this study, content and face validation were carried out by the dissertation supervisor and two other experts in the field of Measurement and Evaluation. Content validity refers to the extent to which the elements within a measurement procedure are relevant and representative of the construct that they will be used to measure, while face validity refers to the degree to which a test on its face value looks relevant, appropriate and reasonable as to measure what it intends to measure. Nwaekeala and Abadom (2018) defined reliability as the consistency of scores obtained by the same person when re-examined with the same test on different occasions or with different sample. The reliability of the instrument to be used in this study was determined using a test-retest method sets of equivalent test. A pilot study was carried out involving the administration of the test instrument to 30 students' chosen from a senior secondary school in Rivers State not selected for the main study and the Pearson's Product Moment Correlation Analysis was used to measure the reliability coefficient of the study. A reliability coefficient of 0.86 was obtained, which is considered good enough. The research questions were answered using mean and standard deviation, while the null hypotheses were tested at 0.05 level of significance using t-test. The instrument consisted of VHE, HE, LE and VLE. Each of the option were assigned values such as VHE-4, HE-3, LE-2, VLE-1. The options in the instrument were analyzed indicating the level of responses. The decision rule was taken based on criterion mean of 2.50, Above the criterion of 2.50 were considered high extent, while below were considered low extent. The null hypotheses where z-calculated value is greater than the t-critical value of 1.96 was rejected while the null hypotheses where z-calculated value is less than z-critical value of 1.96 was accepted.

**RESULTS**

**Research Question 1:** *To what extent does conscientiousness influence academic achievement of students in senior secondary schools in Rivers State?*

**Table 1: Descriptive Statistics on Influence of conscientiousness on academic achievement of students in senior secondary schools in Rivers State**

S/No.	Statement	Male Students n <sub>1</sub> = 149			Female Students n <sub>2</sub> = 250		
		$\bar{X}$	SD	D	$\bar{X}$	SD	D
1	Being patient in relating to others influence students' academic achievement.	3.12	1.01	HE	3.08	0.93	HE
2	Engaging in my academic task carefully influence students' academic achievement.	3.04	0.81	HE	3.11	1.04	HE
3	The willingness to do my school work effectively influence students' academic achievement.	2.96	0.73	HE	3.10	0.91	HE
4	Organization of my thought influence students' academic achievement.	3.25	0.67	HE	3.17	0.73	HE
5	My ability to plan my daily activities before engaging influence students' academic achievement.	2.89	1.12	HE	2.90	0.82	HE
<b>Grand Mean/ Standard Deviation</b>		<b>3.05</b>	<b>0.87</b>	<b>HE</b>	<b>3.07</b>	<b>0.89</b>	<b>HE</b>

**Source:** Field Survey, 2022.

Table 1 presents that items 1 to 5 have means of 3.12, 3.04, 2.96, 3.25, 2.89 for male students with standard deviations ranging from 0.67 to 1.12; and means of 3.08, 3.11, 3.10, 3.17, 2.90 for female students with standard deviations ranging from 0.73 to 1.04 which indicate “High Extent” influence of conscientiousness on academic achievement of students in senior secondary schools in Rivers State. Also, the grand means for male and female students are 3.05 and 3.07 respectively, further confirming a “High Extent” influence of conscientiousness on academic achievement of students in senior secondary schools in Rivers State. Thus, it is found that conscientiousness of students influence the academic achievement of students in senior secondary schools in Rivers State to a “High Extent”.

**Research Question 2:** *To what extent does agreeableness influence academic achievement of students in senior secondary schools in Rivers State?*

**Table 2: Descriptive Statistics on Influence of agreeableness on academic achievement of students in senior secondary schools in Rivers State**

S/No.	Statement	Male Students n <sub>1</sub> = 149			Female Students n <sub>2</sub> = 250		
		$\bar{X}$	SD	D	$\bar{X}$	SD	D
6	My consistent approach in agreeing with others on subject that matters influence students' academic achievement.	2.97	0.77	HE	3.03	1.00	HE
7	My level of academic cooperation determines my cognitive strength which influence students' academic achievement.	2.87	0.85	HE	2.71	1.13	HE
8	My ability to perform my school task in harmony with curricula objectives influence students' academic achievement.	3.02	1.21	HE	2.94	0.70	HE
9	My level of tolerance influence students' academic achievement.	3.06	0.71	HE	2.88	0.81	HE
10	My level of carefulness influence students' academic achievement.	2.89	0.97	HE	3.01	0.75	HE
<b>Grand Mean/ Standard Deviation</b>		<b>2.96</b>	<b>0.91</b>	<b>HE</b>	<b>2.91</b>	<b>0.88</b>	<b>HE</b>

**Source:** Field Survey, 2021.

The information in table 2 shows that items 6 to 10 have means of 2.97, 2.87, 3.02, 3.06, 2.89 for male students with standard deviations ranging from 0.71 to 1.21; and means of 3.03, 2.71, 2.94, 2.88, 3.01 for female students with standard deviations ranging from 0.70 to 1.13 indicating a “High Extent” influence agreeableness on academic achievement of students in senior secondary schools in Rivers State. The grand means for male and female students are, respectively, 3.15 and 3.12, which is a confirmation of high extent influence of agreeableness on academic achievement of students in senior secondary schools in Rivers State. The above results imply that agreeableness influence academic achievement of students in senior secondary schools in Rivers State to a “High Extent”.

**Research Question 3:** *To what extent does openness influence academic achievement of students in senior secondary schools in Rivers State?*

**Table 3: Descriptive Statistics on Influence of openness on academic achievement of students in senior secondary schools in Rivers State**

S/No.	Statement	Male Students n <sub>1</sub> = 149			Female Students n <sub>2</sub> = 250		
		$\bar{X}$	SD	D	$\bar{X}$	SD	D
11	Attention given to task based on scale of preference influence students' academic achievement.	3.12	1.01	HE	3.08	0.93	HE
12	Level of wide variety of interest influence students' academic achievement.	3.04	0.81	HE	3.11	1.04	HE
13	Students' originality influence academic achievement.	2.96	0.73	HE	3.10	0.91	HE
14	Creative ability contributes or influence students' academic achievement.	3.25	0.67	HE	3.17	0.73	HE
15	Openness influence students' academic achievement.	2.89	1.12	HE	2.90	0.82	HE
<b>Grand Mean/ Standard Deviation</b>		<b>3.05</b>	<b>0.87</b>	<b>HE</b>	<b>3.07</b>	<b>0.89</b>	<b>HE</b>

**Source:** Field Survey, 2021.

Table 4 presents that items 11 to 15 have means of 3.12, 3.04, 2.96, 3.25, 2.89 for male students with standard deviations ranging from 0.67 to 1.12; and means of 3.08, 3.11, 3.10, 3.17, 2.90 for female students with standard deviations ranging from 0.73 to 1.04 which indicate “High Extent” influence of openness on academic achievement of students in senior secondary schools in Rivers State. Also, the grand means for male and female students are 3.05 and 3.07 respectively, further confirming a “High Extent” influence of openness on academic achievement of students in senior secondary schools in Rivers State. Thus, it is found that openness of students influence the academic achievement of students in senior secondary schools in Rivers State to a “High Extent”.

### Test of Hypotheses

In this section the Statistical Package for Social Sciences (SPSS) Version 23 was used for the test of hypotheses. The t-test (rather than the z-test) statistic was employed in the analysis despite the large sample size. This was so for three major reasons: 1. When the sample is sufficiently large, the t-value and the z-value coincide. 2. The SPSS does not contain the z-test as both z-test and t-test are treated as the same for sufficiently large samples. 3. Very importantly, the t-value is computed when the population mean and standard deviation are not known, but for z-value computation, the population mean and standard deviation must be known.

The symbols used here were as specified below:

F = Ratio of homogeneity between group variance to within group variance  
(Levene's Test for Equality of Variances)

t = Value of t-statistic obtained from the SPSS analysis

df = Degrees of freedom

p-value = Sig. (2-tailed) obtained from the SPSS analysis to be compared with the  $\alpha$ -value

$\alpha$ -value = Level of significance (0.050) fixed by Rivers State University

**Hypothesis 1:** There is no significant difference in the mean rating of the male and female students on the extent conscientiousness influence academic achievement of students in senior secondary schools in Rivers State.

**Table 4: T-test Analysis of the extent conscientiousness influence academic achievement of students in senior secondary schools in Rivers State**

	F	Sig.	T	Df	p-value	$\alpha$ -value	Decision
Equal variances assumed	70.709	.110	-2.577	798	.072	.050	H <sub>0</sub>
Equal variances not assumed			-2.577	728.206	.072	.050	Not Rejected

Table 4 presents that equal variances assumed has  $t = -2.577$ ,  $df = 798$ , and 2-tailed  $p = 0.072$ . This implies that the null hypothesis that “There is no significant difference in the mean rating of the male and female students on the extent conscientiousness influence academic achievement of students in senior secondary schools in Rivers State” is not rejected as  $t(798) = -2.577$ , 2-tailed  $p = 0.072 > \alpha = 0.05$ . Thus, male and female students of public senior secondary schools in Rivers State are in accordance that conscientiousness influence, to a high extent, the academic achievement of students in senior secondary schools in Rivers State.

**Hypothesis 2:** There is no significant difference in the mean rating of the male and female students on the extent agreeableness influence academic achievement of students in senior secondary schools in Rivers State.

**Table 5: t-test Analysis of the extent agreeableness influence academic achievement of students in senior secondary schools in Rivers State**

	F	Sig.	T	Df	p-value	$\alpha$ -value	Decision
Equal variances assumed	67.311	.258	7.038	798	.071	.050	H <sub>0</sub>
Equal variances not assumed			7.038	675.913	.071	.050	Not Rejected

The information in table 5 shows that equal variances assumed has  $t = 7.038$ ,  $df = 798$ , and 2-tailed  $p = 0.071$ . Thus, the null hypothesis that “there is no significant difference in the mean rating of male and female students on the extent agreeableness influence academic achievement of students in senior secondary schools in Rivers State is not rejected as  $t(798) = 7.038$ , 2-tailed  $p = 0.071 > \alpha = 0.05$ . This implies that male and female students of public senior secondary schools in Rivers State are in a consensus that agreeableness influence academic achievement of students in senior secondary schools in Rivers State.

**Hypothesis 3:** There is no significant difference in the mean rating of the male and female students on the extent openness influence academic achievement of students in senior secondary schools in Rivers State.

**Table 6: T-test Analysis of the extent openness influence academic achievement of students in senior secondary schools in Rivers State**

	F	Sig.	T	Df	p-value	$\alpha$ -value	Decision
Equal variances assumed	70.709	.110	-2.577	798	.072	.050	H <sub>0</sub> Not Rejected
Equal variances not assumed			-2.577	728.206	.072	.050	

Table 6. Presents that equal variances assumed has  $t = -2.577$ ,  $df = 798$ , and 2-tailed  $p = 0.072$ . This implies that the null hypothesis that “There is no significant difference in the mean rating of the male and female students on the extent openness influence academic achievement of students in senior secondary schools in Rivers State” is not rejected as  $t(798) = -2.577$ , 2-tailed  $p = 0.072 > \alpha = 0.05$ . Thus, male and female students of public senior secondary schools in Rivers State are in accordance that openness

influence, to a high extent, the academic achievement of students in senior secondary schools in Rivers State.

## **DISCUSSION OF FINDINGS**

### **Extent conscientiousness influence academic achievement of students in senior secondary schools in Rivers State**

Based on the analysis of the data it was found that conscientiousness has positive influence on academic achievement of students in senior secondary schools in Rivers State. This finding is in line with the assertion of McCrae and Costa (2018) who asserted that conscientiousness is the trait that is associated with diligence, self-discipline, punctuality, and general competence. Conscientiousness is the personality dimension that correlates the strongest, out of all personality dimensions, with overall academic performance. Steel (2017) found that conscientiousness has two attributes: sustained effort and goal-setting which contribute towards academic success. MacCann (2012) argued that conscientious students tend to have high confidence level which encourages greater learning.

### **Extent agreeableness influence academic achievement of students in senior secondary schools in Rivers State**

It was also found that there is a significant influence of agreeableness on academic achievement of students in senior secondary schools in Rivers State. This concept encapsulates constructs of sympathy, cooperativeness, and helpfulness towards others. It is described as the degree to which a person is good natured, warm and co-operative as opposed to irritable, uncooperative, inflexible, unpleasant and disagreeable (Noftle & Robins, 2017). Poropat (2014) believed that high agreeableness facilitate learning and therefore agreeableness has a positive relationships associated with are believed. In relation to the impact of agreeableness on academic performance, Poropat (2014) argued that agreeableness have positive effect on academic performance because it encourages team work discussion. The relationship was later affirmed by Vermetten (2011) who ascertained a positive relationship between agreeableness and effort and surface learning.

### **Extent openness influence academic achievement of students in senior secondary schools in Rivers State**

Also, it was found that there is a significant influence of openness on academic achievement of students in senior secondary schools in Rivers State. This refers to individuals who tend to be creative, imaginative, and curious to experience new things amongst other things. Openness to experience includes traits like imaginative, cultured, curious, original, broad minded, intelligent and artistically sensitive. According to McCrae and Costa (2018) intelligence has a positive relationship with openness. Besides a research conducted by Ackerman and Heggestad (2017) concluded that openness has the highest correlation with intelligence. In the same research they also found that openness did not have the highest correlation with academic performance

## **CONCLUSION**

Personality is so widely studied concept by the psychologists that “personality psychology” is taken as a separate discipline of psychology. Personality psychology is concerned with the analysis of human nature and theories surrounded by the personality must cater the five root ideas that are motivation, unconscious, self, development and maturity. Suppose there are two persons of the same age but have different interests, activities, feelings and thinking, it means there is something different inside them and that “something inside” is said to be personality. Earliest psychologists have defined the personality as development of the individuals’ whole psychological system. Poropat (2014) presented the same concept of personality in his definition: “The dynamic organization with in the individual of those psychophysical systems that determine his unique adjustments to his environment”.

In simple words, personality can be defined as the collection of intrinsic and extrinsic traits that may affect the behaviour of an individual. So to evaluate the personality of a person; traits or characteristics play the primary role. In order to classify and present the personality traits that an individual possesses, numerous authors have presented the different trait theories. Work of Gordon Allport, Raymond Cattell,

Hans Eysenck, Katherine Brigg and Isabel Brigg is important in this context. From the last many years, a general agreement can be observed among the psychologists on a comprehensive and robust personality model that is known as big five personality model that consists of five universal personality traits named as extraversion, conscientiousness, agreeableness, neuroticism and emotional stability. It was concluded that openness, extraversion, conscientiousness, extraversion and neuroticism significantly influence academic achievement of senior secondary school students in Rivers State.

### **RECOMMENDATIONS**

Keeping in view the results of the present study on the relationship between students' personality traits and their academic achievement it is suggested that:

1. Students having conscientiousness personality trait can produce better result in their academics.
2. Having agreeableness personality trait, teacher may guide the students towards English, Chemistry and Islamic Education as optional subjects for better achievements.
3. Seminars/workshop may be arranged for students and teacher about personality traits and their impact on students' academic achievement.

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