



Predictive Roles of Personality Traits and Self-efficacy in Academic Performance of Secondary School Students in Oyo State, Nigeria

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Abstract

The study examined the predictive roles of personality traits and self-efficacy on the academic performance of Oyo State secondary school students. The study determined the relative and joint influences of the two variables on the academic performance of secondary school students. The study employed a descriptive survey design of the ex-post-facto approach. Nine hundred (900) respondents were drawn from 12 schools in Oyo-south senatorial district through a multistage sampling technique. Four valid instruments and students' first-term scores in Mathematics and English provided data for the study. Data were analysed using Bi-variate and Multiple regression statistics. Results revealed that: 32.3% and 29.2% of variations in the academic performance of secondary school students were due to personality traits and self-efficacy respectively; personality traits ($t = 14.268, p < 0.05$) and self-efficacy ($t = 12.481, p < 0.05$) were jointly responsible for 42.3% variation of students' academic performance, with personality traits exercising more influence. The study is significant to teachers, parents, students and counsellors. Recommendations given in the study included: praising students for the smallest achievements; parents and educators to encourage their children or students to set clear achievable goals, directions and purposes for themselves; and teachers were encouraged to maintain good and effective communication with students as teaching quality can affect students' self-belief and self-efficacy which impact on students' achievement.

Keywords: personality traits, academic self-efficacy, academic performance

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Background of the Study

Students' academic performance has gained significant attention from most researchers, especially in the field of education and it has been a general notion over the years that the level of academic performance among secondary school students in Nigeria has been very low (WAEC, 2012). This trend has been attributed to certain factors including socio-economic, religious and psychological, under which self-efficacy finds expression and the culture of the school (Saani, 2012). Psychologists have put forward a number of reasons why these disparities in performance exist and consistently attempted to identify the major predictors of individual academic performance among secondary school students (WAEC, 2005; cited in Eyong, David & Umoh, 2014). Hence, some psychological factors such as intelligence, self-efficacy, gender, study habits, maturation, home background, child-rearing patterns, peer group influence, socio-economic background and learning environment, have been extensively explored as being responsible for academic performance.

Bergold and Steinmayr (2018), conceived personality as an indicator of how a student can excel in school, and since the improvement of learning is the central focus of education, it became imperative to seek its understanding. Another insight of personality traits as given by Holzman (2018), also described it as a behaviour and a way of thinking that an individual develops and shows towards the other which is essential to help him communicate and build his identity. Traits on the other hand are enduring dimensions of personality characteristics that differentiate people from one another which according to Colman (2003) (in Daminabo, 2008) is the total of stable characteristics in a person across different times and situations that make him unique or distinct from others. Understanding personality traits also helps people carve their way to surviving the ever-changing world as it gives an idiographic view of the individual's identity (McLeod, 2017), as well as the attitudes, thoughts, and feelings that characterize an individual (Feist & Rosenberg, 2012).

The personality approach of traits according to Fiske (1949), in The Big Five-factor model (FFM) of personality can be observed in five dimensions namely: extraversion, conscientiousness, openness to experience, agreeableness and neuroticism. Ali and Bano (2012), opined that an extroverted student learns to express himself through words in writing and speech while the agreeableness trait enables a student to cope with problems associated with everyday living as he tends to have good interpersonal relationships. Conscientiousness trait is strongly associated with academic achievement in an individual and was described as related to academic performance, and the ability to persist in task goal-oriented behaviours (John, Naumann & Soto, 2008) and also includes following norms, exhibiting self-discipline, planning subsequent tasks and putting them in order of importance.

Openness to experience personality traits on the other hand was attributed to learning with mastery through active imagination and inner feelings by Ali and Bano (2012), who affirmed that it includes the task of book reading, vocabulary development, general knowledge, different culture and lifestyle. Openness trait is manifested in the tendency of an individual to explore, detect and enjoy abstract and sensory information which occasionally has a positive relationship with academic achievement

while neuroticism describes the tendency to experience negative emotions of anxiety, depression, emotional inability, anger, and related processes in response to perceived threat and punishment (Costa, 2001; cited in Weisberg, DeYoung & Hirsh, 2011).

Academic self-efficacy according to Nasiriyani, Azar, Noruzy and Dalvand (2011); and Ormrod, Anderman and Anderman (2017), refers to a student's judgement of his capabilities to learn or master new knowledge, skills, organise and execute them to attain designated academic performance levels (Lee & Mendlinger, 2011). The concept of academic self-efficacy alludes to self-belief, self-trust, self-reliance and self-confidence in how a student can attain his anticipated academic outcomes, or goals (Nasa & Sharma, 2014) and perceives the influence of thoughts, patterns and emotional arousals that lead to projected academic actions (Ormrod, Anderman & Anderman, 2017). With academic self-efficacy which is essential in the development of an individual's effectiveness, Abid, Muhammad, Aaqib and Farhat, (2019), believed that learners become fully confident in any type of academic challenge and also try to avoid any threat that might come their way during the period of achieving their academic goals in a learning continuum.

Self-efficacy as a critical and imperative cognitive process towards influencing students' learning for academic success provides a clear prediction about the interrelations of the traits that determine human personality which this study sought to confirm its prediction of human self-academic performance. of students in secondary school in Oyo state, Nigeria.

Objectives of the Study

The broad objective of the study was to investigate predictive roles of personality traits and self-efficacy on the academic performance of students in secondary school in Oyo-South Senatorial District, Oyo State, Nigeria. Specifically, the study:

1. determined the predictive role of personality traits on the academic performance of secondary school students in Oyo-South Senatorial District, Oyo state, Nigeria.
2. examined the predictive roles of academic self-efficacy on the academic performance of secondary school students in Oyo-South Senatorial District, Oyo state, Nigeria.
3. ascertained the joint predictive role of personality traits and self-efficacy on academic performance of secondary school students in Oyo-South Senatorial District, Oyo state, Nigeria.

Research Questions

The following research questions were tested in the study:

1. What is the predictive role of personality traits in academic performance among secondary school students in Oyo-South Senatorial District, Oyo state, Nigeria?
2. Would self-efficacy play a predictive role in the academic performance of secondary school students in Oyo-South Senatorial District, Oyo state, Nigeria?
3. What is the joint predictive role of personality traits and self-efficacy in the academic performance of secondary school students in Oyo-South Senatorial District, Oyo state, Nigeria?

Scope of the Study

The study was limited to secondary school students in Oyo-South Senatorial District, Oyo state; predictive roles of personality trait and self-efficacy in academic performance of secondary school students; the instrument titled 'Personality Trait and Self-Efficacy' and students' first term scores in Mathematics and English.

Significance of the Study

The findings of the study would be beneficial to teachers on the need to stimulate positive emotions in students by using interactive techniques in classrooms, giving supportive, appropriate and positive feedback, and encouraging cooperation instead of competition.

The result could serve as an instrument for primary interventions by counsellors to help them detect those students at risk of academic failure, so the students would receive the best counselling and educational services in their schools.

Taking the differences in personality traits into consideration could help educators recognize and respect individuation in their students.

This study should help school authorities focus on students' self-efficacy as an effective mechanism of association with personality traits and academic performance.

The findings would also help students to understand and know more about their personality and how it could help in developing and surpassing the life and academic struggles they may encounter. Strengthening capabilities and boosting self-efficacy can improve a person's way of thinking such that he can build a strong belief that he can do well by being true to himself.

The outcomes of this study should help parents to have a better understanding of their children and why they exhibit particular behaviours towards their everyday lives and academic performance.

Hierarchical Theory of Personality

It is a theory of personality traits which represents the dominant conceptualization of personality structure. The theory conceived that human individuality is invariably expressed in cultural, social, interpersonal and social behaviours which emanate from the individual (McCrae & Costa, 1997) and eventually reside at the highest level of the personality hierarchy. McCrae et.al. (2006), proposed that The Big

Five Factor Model (FFM) can be assessed by self-reports which can serve to characterise an individual for a long period. De Feyter, Ralf, Claudia and Dries (2012) affirmed that The FFM of Openness to experience, Agreeableness, Extraversion, Conscientiousness, and Extraversion influence learning intention because behavioural tendency reflected in personality traits affect certain habits that influence academic success or failure of an individual. An example of openness to experience personality traits is evident in adventure activities, creative ideas, imagination and varieties of experiences which differentiates intellectual, inquisitive and resourceful students from others.

Conscientiousness traits in students are evident in the display of self-control, dutifulness and aim for accomplishment. Students who have this trait demonstrate a preference rather than impulsive behaviour. Extraversion traits, however, are characterised by students' positive emotions and propensity to seek out stimulation in the company of other students. The trait is distinct by marked commitment to the external world with students in this group tending to be passionate and action-oriented. Openness to experience traits is manifested in the tendency of the personality to explore, detect and enjoy positive relationships with academic achievement. Agreeableness traits convey a tendency to be concerned, trustworthy, and cooperative with other students or teachers rather than having mistrustful and antagonistic dispositions towards school and schooling. Neuroticism traits are evident in students who habitually experience negative emotions that may likely affect their learning intention or academic performance. Students who are markedly high in neuroticism are emotionally reactive and susceptible to stress and more likely to read normal situations as intimidating, and minor frustration as hopelessly difficult.

Bandura Social Learning Theory

Social Learning Theory (SLT) was introduced in 1963 by Bandura to better understand how human motives, including social and learning variables, can influence human behaviour. Using SLT, Bandura (2012) revealed that self-efficacy is determined by the direct influence of others and individuals' reactions because individuals react to these influences based on interrelated controls of intra-personal influences, the engagement of individual behaviours, and the environment to which individuals are exposed. The SLT posited that human beings observe one another and complete tasks based on these observations and the modelling of these behaviours is an effective tool that students can use to emulate the work of those around them.

In Bandura's contribution, attention, retention, reproduction and motivation are important conditions that are needed to support effective learning, and they are based not only on the environment created but also on the behaviours of students and teachers in that particular environment. Furthermore, self-efficacy is believed to be situational in nature rather than being viewed as a stable trait (Linnenbrink & Pintrich, 2012), thereby making students give reliable differentiation between their self-efficacy judgments across different academic domains.

Personality Traits

Personality is the unique set of characteristics and qualities that unequivocally

define an individual across situations and contexts. The word personality is derived from the Latin word “persona” which can be translated to the word “mask” (McClain, 2007). These masks are a representation of the different personality characteristics. Every person can be differentiated by their unique physical attributes and personal characteristics, which other individuals gravitate toward, or find intriguing and interesting. In Al-Dujaily, Kim and Ryu (2013), it was noted that personality determines a person’s emotional and behavioural adjustments to their surroundings, as well as influences a person’s perspectives on the environment and the establishment of relationships (Hussain & Adam, 2018). A trait is any aspect of personality that is reasonably characteristic and distinctive. The concept of personality traits is rooted in common sense and everyday observation as internal predispositions that are relatively stable over time and across situations (Owino-O, 2020). However, Parks-Leduc, Feldman and Bardi (2015) acknowledged the Five-Factor Model as the most commonly used model of personality trait study which categorises several behavioural and identity characteristics with all these traits playing substantial roles in influencing the academic performance of students.

Academic Self-efficacy

Academic self-efficacy is the personal judgment of their capabilities to organise and execute courses of action to attain specific educational objectives. It is an important indicator of student’s motivation and academic performance, as students with higher self-efficacy utilise higher tendency, endeavour and strength in performing academic tasks (Bong, 2001; cited in Arbabisarjou, Zare, Shahrakipour & Ghoreishinia, 2016). Atoum and Al-Momani (2018) opined that self-efficacy can either enhance or decrease students’ capabilities, as students who have a higher degree of self-efficacy will have a higher intention to persist in the face of external obstacles, therefore, when the necessary skills are lacking, self-efficacy will not produce better academic performances.

In an academic environment, self-efficacy refers to a student's beliefs about the ability to perform specified academic tasks (Pajares, 2016). Yusuf (2011), confirmed that academic self-efficacy makes students always think about the most effective ways to accomplish each academic task. Academic self-efficacy is one of the important factors influencing academic success and it was conceived by Sharma and Nasa (2014) as one’s belief to achieve the desired level of intellectual performance in academic tasks through improvement in cognitive skills that require applying learned skills in one area to another area.

A study by Sadi and Uyar (2013) has contributed that academic self-efficacy can influence the choice of tasks and perseverance exhibited while doing them, hence, students with low self-efficacy are more likely to be afraid of doing their tasks, avoiding, postponing, and giving up soon. This contrasts with responses of individuals with high levels of academic self-efficacy who are more likely to rely on themselves when faced with complex issues to find a solution to the problem, as well as being patient during the process, making more efforts, and persisting longer to overcome challenges. Linenbrink and Pintrich (2013), have also affirmed that academic self-efficacy is significantly associated with students' learning, cognitive engagement, analytical

thinking, academic commitment, strategy use, persistence, susceptibility to negative emotions and achievement. Linenbrink conceived that in the academic context, children's beliefs in their efficacy to control their educational processes and outcomes and to become proficient in challenging subject matter, likely have a great impact on their scholastic impetus, interest and educational performance.

Concept of Academic Performance

Academic performance is undoubtedly becoming a topic of research after the heart of social scientists particularly psychologists in their struggle to ascertain what determines the academic performance of students. It is one indicator of success in learning and one of the parameters used to measure the effectiveness of a school system and the outcome of education (Von Stumm, Hell & Chamorro-Premuzic, 2011). In another capacity, it refers to the knowledge attained and designated by marks assigned by the teacher or institution over a certain period either by examinations or continuous assessments (Narad & Abdullah, 2016).

The learning process proposed by educators consists of input, process and output which students need to have good self-regulation on before good learning can be achieved. Academic performance, therefore, is a measurable index for testing educational quality, cognitive, affective and psycho-motor domains that captures the quality of students' academic success from re-primary through tertiary (York, Gibson & Rankin, 2015). Joe, Kpolovie, Osonwa and Iderima, (2014), referred to it as the observed and measured aspect of a student's mastery of skills and subject contents as measured with valid and reliable tests by the teacher, or through standardised external examinations like the Senior School Certificate Examination (SSCE) conducted in Nigeria by the West African Examination Council (WAEC) and the National Examination Council (NECO).

Personality Trait and Academic Performance

Students exhibit distinctive personality characteristics which makes them prepared for having different worldviews and behaving differently in various social and educational settings. According to Weinschenk and Panagopoulos (2014), the FFM is considered to be a practical, comprehensive and hierarchical model for understanding and studying personality and individual differences, with its factors empirically derived and representing personality and individual differences at their broadest level of abstraction. Douglas (2014) and Krach (2016) indicated that agreeableness correlates positively to academic achievement and those who are agreeable are likely to have higher levels of academic self-efficacy hence leading to better academic performance. Douglas further noted that learners who had high levels of agreeableness tend to be more social hence increasing contact with classmates thus increasing the speed at which they can pronounce words. The external surroundings determine the academic achievement of extroverts because these individuals tend to be overly social and talkative and if not controlled, supervised or given a lot of work to do, they may end up

wasting their time which could affect their academic outcome. Joan (2013) noted that extroverts learn better in a relatively unstructured learning environment though they need to be supervised to complete given tasks.

Neuroticism in an individual is characterised by being unable to control desires which John and Ekatarina (2013), attributed to fearful engagement and avoidance of taking up tasks in-class activities. This makes it difficult to perform well in examinations that require practical skills because such students have not mastered the required skills, making them unable to attempt those questions. Vidya (2014), further noted that it was important to develop awareness and understanding of the existence of this dimension in the medical students for their excellent academic performance in medical school. Trapman (2007), stated that conscientiousness is a major predictor of academic achievement and that all other personality traits are secondary to it. Trapman further recorded that there was a positive correlation between conscientiousness and academic achievement and attributed this to the fact that learners who exhibit high levels of conscientiousness are generally intrinsically motivated and do not procrastinate on any schoolwork.

Individuals who are open to experience are said to have high self-efficacy and tend to have high academic achievements, especially in Arts subjects. Matz (2010), posited that there is a positive correlation between openness to experience and academic achievement while Karanja (2015), affirmed that highly open learners are always willing to learn something new, curious and inquisitive which are important traits believed to achieve high levels of academic achievement. Sameera (2015), further recorded that openness is directly related to academic achievement because it subsumes intellectual traits of curiosity and open-mindedness. Academic performance and its relation to personality should not only be considered at the tertiary or occupational level but should start at lower school levels as performance and success at the school level play an important role for learners who are required to make subject choices consistent with their personalities during the senior secondary years.

Academic Self-Efficacy and Academic Performance

Academic self-efficacy is explained within the theoretical framework of social cognitive theory by Bandura (1986, 1997, cited by Mahyuddin, Elias, Loh, Muhamad, Noordin & Abdullah, 2006) which states that human achievement depends on interactions between one's behaviours, personal factors and environmental conditions. It is significantly associated with students' learning, cognitive engagement, analytical thinking, academic commitment, strategy use, persistence, achievement, and belief in personal efficacy to control educational outcomes and to become proficient in challenging subject matter. Research works of Motlagh, Amrai, Yazdani, Abderahim and Sourie (2011) have consistently shown that students' beliefs about their abilities to successfully perform academic tasks predict their actual achievement levels in school and have a great impact on students' scholastic impetus, interest and educational performance.

The construct motivates student's learning through the use of such self-regulatory processes of goal setting, self-monitoring, self-evaluation and strategy use which Weber, Ruch, Littman-Ovadia, Lavy and Gai (2013), confirmed affect the

successful completion of their tasks more efficiently and with mastery from their actual performances, their vicarious experiences, the persuasions they receive from others, and their physiological reactions. It is therefore, not surprising that many research results show that self-efficacy influences academic achievement motivation, learning and academic achievement since students with higher self-efficacy have better academic performance and work harder in school (Schunk, 1995, cited by Mahyuddin, Elias, Loh, Muhamad, Noordin & Abdullah, 2006). In line with these findings, there was a positive relationship between self-efficacy and academic achievement and if students are trained to have higher self-efficacy beliefs their academic performance also improves.

Academic self-efficacy is considered a major personality attribute associated with behavioural patterns within which academic performance blossoms (Troncone, Drammis & Labella, 2014). Hence, academic self-efficacy is considered not just task-specific and varies across situations, but also an instrumental personality characteristic that pervades every facet of an individual's performance.

Mastery of English Language and Mathematics

There are different cognitive dimensions involved in mastering the academic subjects of English and Mathematics. Language learning has changed over the years from the typical old-school drilling techniques with interaction only between the learner and teacher, to a more communicative approach where learning happens in a more natural setting with directive feedback from whoever is listening (Ariza, 2002). Mastering a language is a more parallel process which develops through continuous exposure, analogy and similarities. On the other hand, inductive reasoning and spatial ability are linked to success in Mathematics which is acquired through building upon previous concepts and manipulation (De Jong, 2015), and obtained through constructivist teaching, as knowledge is built upon previously learned concepts using the scaffolding technique (Bosman & Schultz, 2018). For learners to master mathematics, it needs to make sense to them as many learners experience a disconnect between the procedural and conceptual understanding of the subject and they are unable to make a transition from applying the basic manipulation of the subject to applying their skills to solve word problems.

It is also necessary for learners to connect these concepts to reality, for learners to understand it. A plus side to mathematics learning is that learners have some flexibility in how they approach mathematical problems. Being able to use their methods (Biccard, 2018), allows them the freedom to solve problems with methods which work best for them. Many articles also attribute the success in Mathematics to teachers' styles and adequate knowledge of the content and concepts of the subject taught, to provide maximum benefit to the learners.

Reports from Adeyemi and Ige, (2012); Omoregie, (2005), confirmed the poor quality of secondary school students and outputs in Nigeria, which reflected in increasing failure in examinations, particularly the unified, standardised Senior School Certificate Examinations.

Table 1: Performance of Students in Selected Subjects in Senior School Certificate Examination (SSCE) in Nigeria: 2004 -2008.

Year

2004
2005
2006
2007
2008

English Language

Total sat

1,020,431
1,064,587
1,154,266
1,252,570
1,348,214

Total passed (%)

604,371
(59.23%)
644,707
(60.49%)
769,001
(66.62%)
846,209
(67.56%)
899,091
(66.69%)

Total failed (%)

383,882 (37.62%)
393,201
(36.93%)
342,311
(29.66%)
379,006
(30.26%)
422,686
(31.35%)

Mathematics

Total sat
1,019,524
1,054,853
1,149,277
1,249,028
1,340,907

Total passed

(%)
633,594
(16.53)
670,582 (63.57)
829,999
(72.22)
917,868
(73.49)
1,086,031
(80.99)

Total failed

(%)
351,512
(34.48)
363,055 (34.42)
286,823 (24.96)
302,774 (24.24)
229,021 (17.08)
WAEC, (2012)

Methodology

Research Design

The study made use of a descriptive survey research design of the ex post facto approach. It is a study which does not manipulate the independent variable.

Population of the Study

The target population of the study consisted of secondary school students in Oyo-South Senatorial District, Oyo state, Nigeria.

Sample and Sampling Technique

The study employed a multistage sampling technique. Four (4) secondary schools each were randomly selected in three (3) local government areas (Ibadan North, Ibadan North East and Ibadan North West Local Government) in Oyo-South Senatorial District Oyo State. Seventy-five (75) students were randomly selected from each of the four schools in each of the three local government areas, making an overall total of nine hundred (900) respondents.

Research Instrument

The study adopted the Personality Traits Inventory, IPIP Big Five Factor Markers (Goldberg, 1992), Academic Self-Efficacy Questionnaire (ASEQ) by Gaumer and Noonan (2018) and the proforma method was used to collect students' first-term scores in Mathematics and English. However, the two adopted instruments were collapsed into one, under three sections, A, B and C. Section A sought demographic data of the respondents, Section B contained 31 items measuring the Personality Traits of the respondents (example of an item is 'I am the life of the party') while section C contained 21 items measuring the Academic Self-Efficacy of the respondents (example of an item is 'I can learn what is being taught in class this year'). Responses are formatted on a four-point scale of "Strongly Disagree" (SD = 1), "Disagree" (D = 2), "Agree" (A = 3), and "Strongly Agree" (SA = 4).

Validity of Instrument

A copy of the questionnaire was given to two experts in the field of psychology and test and measurement for necessary input to ensure its face and content validity.

Reliability of Instrument

For suitability, a test-retest over a period of two weeks was used to establish the reliability of the instrument at 0.86. The instrument was administered to fifty (50) students who were not part of the study sample. The data collected were subjected to Pearson Product moment correlation (PPMC) and analysed at a 0.05 level of significance.

Procedure for Data Collection

The researchers visited and sought the permission of the school principals and class teachers of the selected schools. The consent of the respondents was also sought before the administration of the instrument by the researchers with the help of two research assistants. The exercise which required the immediate completion and retrieval of the instrument lasted for a period of two weeks.

Methods of Data Analysis

The data collected were subjected to bivariate and multiple regression statistical methods. The standardised scores of the students in English Language and Mathematics were converted to standard scores (Z-scores) since they were graded by different

teachers. The Z-scores were further converted to transformed scores (T-Score) to remove the negative values and decimal fractions. T-scores (Transformed Scores) were used to standardize the raw scores. The conversion was necessary to ensure their reliability and validity since they were obtained from different secondary schools. Thus, to convert a Z-score to a T-score, the Z-score result is multiplied by 10 and then 50 is added. The Z-score conversion formula is given as follows;

Where:

Z = Standard score

X = Raw score of students in the subject

\bar{x} = Average or Mean Score of the level or cohort

s = Standard Deviation of the level or cohort

Results

Research Question One

What is the predictive role of personality traits on academic performance among secondary school students in Oyo South Senatorial District, Oyo State?

Table 1: Summary of bivariate regression on the predictive role of personality trait on academic performance among secondary school students in Oyo South Senatorial District, Oyo State

Independent variable	Coefficients		
	B	B	t-value
Personality trait	0.499	0.568	20.699*
<i>Test results</i>			
F- value	428.384*		
R	0.568		
R ²	0.323		
Constant	0.454		

*Significant at 0.05 significance level; probability value = 0.000; tabulated t-value = 1.960

Using bi-variate regression analysis, personality traits were measured using the item in Section B that included *I am interested in people*, while the academic performance of students was measured using students' scores in two subjects (*English and Mathematics*). To make the two sets of data suitable for the application of parametric statistics, they were transformed into dummies of 1 and 0. Student perfor-

mance was also re-coded into 1 for scores >39 and 0 for scores <40. The result obtained is shown in Table 2. The R2 result showed that 32.3% of the variation in the academic performance of secondary school students in Oyo state is caused by personality traits.

The result further indicated that personality traits have a significant influence on the academic performance of secondary school students in Oyo State ($t = 20.697, p < 0.05$). This decision is because the probability value of 0.000 is lower than the 5% significance level or because the calculated t-value of 20.697 is greater than the critical t-value of 1.960. The result obtained showed that personality trait is a significant determinant of the academic performance of students. The positive regression coefficient simply suggested an increase in the academic performance of secondary school students with an increase in personality traits. It further revealed that a unit increase in personality traits will bring about a 49.9% increase in the academic performance of secondary school students. The result in Table 2, therefore, provided an answer to the first research question that personality traits have a significant positive influence on the academic performance of secondary school students in Oyo State.

Research Question Two

Would self-efficacy play a predictive role in the academic performance of secondary school students in Oyo South Senatorial District, Oyo State?

Table 2: Summary of bivariate regression on the predictive role of self-efficacy on academic performance among secondary school students in Oyo South Senatorial District, Oyo State

Independent variable	Coefficients		
	B	β	t-value
Self-efficacy	0.544	0.541	19.255*
<i>Test results</i>			
F- value	370.759*		
R	0.541		
R ²	0.292		
Constant	0.384		

*Significant at 0.05 significance level; probability value = 0.000; tabulated t-value = 1.960

Bivariate regression analysis was used to measure self-efficacy using Section C with an item that says *I can learn what is being taught in class this year*, while the academic performance of students was measured using students' scores in two subjects (*English and Mathematics*). The result obtained is shown in Table 3. The R2 result showed that 29.2% of the variation in the academic performance of secondary school students in Oyo State is attributed to self-efficacy.

The result indicated that self-efficacy has a significant influence on the academic performance of secondary school students in Oyo State ($t = 19.255, p < 0.05$). This decision is because the probability value of 0.000 is lower than the 5% significance level or because the calculated t-value of 19.255 is greater than the critical t-value of 1.960. The result obtained indicated that self-efficacy is a substantial factor in the academic performance of students. The positive regression coefficient simply suggested an increase in the academic performance of secondary school students with an increase in self-efficacy. It further revealed that a unit increase in self-efficacy will bring about a 54.4% increase in the academic performance of secondary school students. The result in Table 3 therefore provided an answer to the second research question that self-efficacy has a significant positive influence on the academic performance of secondary school students in Oyo State.

Research Question Three

What is the joint predictive role of personality traits and self-efficacy in the academic performance of secondary school students in Oyo-South Senatorial District, Oyo State?

Table 3: Summary of multiple regression on the joint role of personality trait and self-efficacy in academic performance of secondary school students in Oyo South Senatorial District, Oyo State

Independent variables	Coefficients		
	B	β	t-value
Personality trait	0.357	0.406	14.268*
Self-efficacy	0.358	0.356	12.481*
<i>Test results</i>			
F- value	328.996*		
R	0.650		
R ²	0.423		
Constant	0.263		

*Significant at 0.05 significance level; probability value = 0.000; tabulated t-value = 1.960

Multiple regression analysis was employed to respond to the third research question as shown in Table 4. The R² result showed that 42.3% of the variation in the academic performance of secondary school students in Oyo State is attributed to personality traits and self-efficacy. The result indicated that personality traits ($t = 14.268, p < 0.05$) and self-efficacy ($t = 12.481, p < 0.05$) exerted significant influence on the academic performance of secondary school students in Oyo State with a probability value of 0.000 lower than 5% significance level and the calculated t-value of 14.268 and 12,481 greater than the critical t-value of 1.960. The result obtained showed that personality traits and self-efficacy are substantial factors in the academic performance of students. The positive regression coefficients simply suggest an increase in the academic performance of secondary school students with an increase in personality traits and self-efficacy.

A look at the regression weights revealed that personality traits had a higher weight of 0.406 than self-efficacy of 0.356 implying that personality traits exerted more influence on the academic performance of secondary school students than self-efficacy. It further revealed that a unit increase in personality traits will bring about a 40.6% increase in the academic performance of secondary school students, while an increase in self-efficacy will result in a 35.6% increase in academic performance. The result in Table 4 therefore provided an answer to the third research question that personality traits and self-efficacy have a significant positive influence on the academic performance of secondary school students in Oyo State. It further identified personality traits to exercise a higher influence on the academic performance of secondary school students.

Discussion of Results

What is the predictive role of personality traits on academic performance among secondary school students in Oyo-South Senatorial District, Oyo State?

Findings revealed that personality traits have a significant positive influence on the academic performance of secondary school students in Oyo State. One of the most important goals of students at all levels is to achieve good grades and to have a high level of academic success that has significant positive outcomes for both students and the community. Thus, one of the major preoccupations of educational systems and educational psychologists is to identify the factors that influence students' academic performance.

This result agreed with those of Hayat, et al., (2020) who reported a significant positive relationship between personality traits and the academic performance of medical students. The results showed that individual differences in personality traits, directly and indirectly, play an essential role, through self-efficacy in contributing to the student's academic performance. The study of Hayat et al., (2020) further revealed that openness, conscientiousness, agreeableness, and self-efficacy had a significant positive and direct effect on academic performance. The result also agreed with the study of Hakimi, Hejazi and Lavasani (2011) which reported a significant positive relationship between personality traits and academic achievement. In another study, Caprara, Vecchione, Alessandro et al., (2011) and Poropat (2009) showed that individual differences in personality traits such as conscientiousness, openness, and

agreeableness played an essential function in contributing to students' academic success. These studies among others showed the essential or predictive role personality traits play in influencing the academic outcomes of students.

This work agreed with Obeten's (2021) claim that the best way to be aware of the differences between individuals in academics is by understanding their personality traits. All these traits play substantial roles in influencing the academic performance of students.

Would self-efficacy play a predictive role in the academic performance of secondary school students in Oyo-South Senatorial District, Oyo State?

The results obtained showed that self-efficacy has a significant, positive and direct influence on the academic performance of secondary school students in Oyo State. This result agreed with Hayat et al., (2020) who reported a significant positive relationship between self-efficacy and academic performance of medical students. It also aligned with Hayat, Shateri, Amini et al., (2020) report that students' self-efficacy has an impact on their learning-related emotions and meta-cognitive learning strategies, and these, in turn, affect the student's academic performance. This finding is in line with several other studies (Di Giunta, Alessandri, Gerbino et al., 2013; Caprara et al., 2011) that found persistence, resourcefulness, and use of cognitive strategies and self-efficacy as constant predictors of academic achievement.

Frey and Determan (2004) believed that students with higher capability show higher achievement and obtain higher evaluations as they have less anxiety and higher self-efficacy. In addition to early detection of the students who are potentially at risk and performing interventions in this regard, an increase in students' self-efficacy can be a practical measure to change and improve the students' achievements (Hayat et al., 2020). Self-efficacy can be modified through appropriate interventions and various educational approaches

What is the joint predictive role of personality traits and self-efficacy in the academic performance of secondary school students in Oyo-South Senatorial District, Oyo State?

Using multiple regression analysis, the result revealed that personality traits and self-efficacy have a significant positive influence on the academic performance of secondary school students in Oyo State. It further identified personality traits to exercise a higher influence on the academic performance of secondary school students. The result obtained in this study is consistent with those of Hayat et al., (2020) that reported a significant positive relationship between personality traits, self-efficacy and academic performance of medical students. To have a personality trait, students must be somewhat consistent across situations in their behaviours related to the trait.

Individuals with a trait are also somewhat stable over time in behaviours related to the trait. Personality traits tend to impact academic performance more, due to individual differences in personality traits, such as conscientiousness, openness, and agreeableness. These traits play an essential function in contributing to students' academic success (Obeten, 2021).

Conclusion

The findings from the study have shown that personality traits have a significant positive influence on the academic performance of secondary school students in Oyo State. It argued that individual personality traits, directly and indirectly, play an essential role in contributing to the student's academic performance. Students are shown to have distinctive personality characteristics which make them behave differently in various social and educational settings. Self-efficacy was observed to have a significant positive influence on the academic performance of secondary school students in Oyo State. The findings further revealed that personality traits and self-efficacy jointly predict the academic performance of secondary school students in Oyo State with personality traits exercising more influence.

Recommendations

In line with the research findings, the following recommendations were made:

1. Praising students for their achievements, no matter how small, goes a long way in boosting their self-confidence, especially when it comes from a teacher or guide. As such, teachers should try as much as possible to give positive feedback to their students. It helps them to try harder the next time and learn from their mistakes.
2. Teaching quality can affect students' self-belief and self-efficacy and thus impact students' achievement indirectly. As such, teachers are encouraged to maintain good and effective communication with students.
3. Counsellors and educational psychologists should identify students experiencing worry, anxiety, frustration and stress. These groups of students should be assisted using appropriate counselling therapies such as cognitive behavioural therapy, self-management techniques, and problem-solving techniques among others to deal with their concerns.
4. Individual students should be encouraged to develop healthy study habits and time management for good academic performance in the examinations.
5. Parents and educators should encourage their children or students to set clear goals, directions and purposes for themselves. This is to ensure that they are disciplined and careful to consistently achieve them.

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