LEARNING STRATEGIES AND ACADEMIC PERFORMANCE OF NEUROTIC AND STABLE STUDENTS OF SENIOR SECONDARY SCHOOLS IN SOKOTO STATE, NIGERIA

HARUNA SANI ALIERO, PhD

Department of Education Foundation, Faculty of Education, Kebbi State University of Science and Technology, Aliero

Abstract

The main thrust of this study is to find out the difference in learning strategy and academic performance of stable and neurotic students of senior secondary schools in Sokoto state. A survey research design was employed for the study. Ten senior secondary schools were selected based on systematic random sampling procedure. The study was made up of a sample size of 160 males and 160 females; given a total of 320 respondents. Three research instruments were adapted for use namely: Learning and study strategy inventory (LASSI),to measure learning strategy, Junior Eysenck personality inventory (JEPI) to measure personality types and English Language and Mathematics Tests to measure Academic performance. Two research hypotheses were formulated for the research. Mean, standard deviation and Two tailed t-test Analysis of variance were the statistical tools used to test the hypotheses at 0.05 level of significance. The result from the research hypotheses indicated that: there is a significant difference in the academic performance of stable male and female students and their learning strategies and on the second hypothesis, findings shows that there was no significant difference in the academic performance of neurotic male and female students. Based on these findings, some recommendations were preferred which include; The learning strategy and personality of students should be given prominence by secondary school instructors; and should directly reflect in their teaching methods.

Keywords: *Learning Strategies, Academic Performance, Neurotic and Stable Students*

Introduction:

Learning is the acquisition of knowledge or skill through experience, practice or study. It is the knowledge acquired by systematic study in any field. Learning is a change in behavior and which is more or less permanent in nature and comes as a result of activities, training and observation (Salawu and Isah, 2005). Maitafsir (2001) defines learning as a development in an organism's mental state as a result of new information, experience and training gained.

Learning strategies is seen as adopting a plan of action in the acquisition of knowledge, skills and attitudes. It serves as a catalyst which facilitates academic performance of students. It plays a significant role in the academic accomplishment of students. It ease the teacher's job of instructional planning and implementation. Similarly, learning strategy will help to arouse, stimulate and sustain interest and attention of students. A study on learning strategy would help teachers in understanding some of the important variables contributing to educational attainment of students in Kebbi state in particular and Nigeria in general.

The Federal Government of Nigeria through its National policy on Education (2011 revised) stresses the need for competence in both mental and physical abilities as equipments for the individual to live in and contribute to the development of his or her society. To develop mental ability, the student has to master the rudiments of learning, hence the need for learning strategies.

On personality variable, many psychologists believed that personality affects learning activity. More significantly is the fact that introversion - introversion and stability – neuroticisms impulses of the individual behavior affect his mental ability (Irena 1993). This has established the need to examine personality variable as it affects academic performance.

The success of producing functional citizen through formal education is dependent on an effective learning process. This is because learning is associated with behavioral development and modifications The neglect of the learning process, made students to be involved in a lot of difficulties which affect their academic achievement. Similarly, neglect of learning strategy and personality types which facilitates academic achievements may be responsible for poor academic achievements in schools.

The Personality Psychologists are interested in the unique characteristic of Individuals as well as similarities among group of people. Based on this assertion, Personality is made up of the characteristic pattern of thought, feelings, and behavior which makes a person unique, in additions to this; personality arises from within the individual and remains fairly consistent throughout life.

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Statement of the Problem

The problem of this study is that students got involved in a lot of difficulties arising from their learning process which affect their academic performance. Some of these difficulties are in the areas of information processing, selecting main idea, test taking strategies, concentration, anxiety, motivation, and time management. In the area of information processing, questions like: how well do students use imagery, verbal elaboration, organizational strategies and reasoning skills? to be able to build bridge between what they already know and what they are trying to learn and remember are the parameters to be examined in this study.

LITERATURE REVIEW

Arif and Aysel (2008) investigate the effects of the relationship between teaching and learning strategies on academic achievement. The purpose of this study is (1) to identify the strategies used by students and the teachers in school of Foreign languages at Erciyes University,(2) To find out whether there is a difference between the strategies used by the two groups, (3) to investigate the effect of the students gender, age and department in their strategy preferences, (4) to see the relationship between the language learning strategies of the learner and their academic success,(5) to investigate the effect of relationship between the language learning strategies of the students and language teaching strategies of teachers on the academic achievement of the students.

A statistically significant difference was found among all types of strategies used by the learners and the teachers. While relationship between the compensation strategy and the academic success of students was statistically significant, the affective strategy was found to have a negative meaningful relation with the academic success. However, the most favored strategy used by both the students and the teachers were Meta cognitive strategies and compensation strategies. At the end of the present study some recommendations for foreign language teachers to use this strategies effectively was provided.

Ali and Jale (2010) investigate learning strategies of successful and unsuccessful University Students. The purpose of the study was to assess the most commonly used learning strategies of undergraduate students and how these strategies were related to their academic performance. Towards these responses, a 60 linkert scale was administered to a sample of 278 undergraduate students. The students were selected based on their cumulative - grade - point – average as the most successful and the least successful five senior year students from each majoring area in the faculties of arts, engineering science, communication and sports. The Alpha reliability coefficient of the scale was 0.93.

Results showed that successful students used more, varied, and better learning strategies than unsuccessful students. Female students were more effective in selecting and using appropriate strategies than male students. There were a variety of differences among fields of study; students of fine arts used the strategy least, while students of sports used them the most. The most preferred group of strategies were the meta cognitive strategies, where as the least preferred group was organization strategies. The same pattern was found for the level of success, gender and field of study. The overall results imply that certain strategies contribute to student's performance more than other strategies, and majority of university students are aware of this situation.

Augus, Elizabeth, Kanemdum and John (2008) investigate the relationship between personality approach to learning and academic performance. The study considers relationship between student approaches to learning as measured by a short –form of Estwintle and Taits (1995) Revised Approaches to Studying Inventory (RASI) The big five personality factor as measured by Cartell's 16PFI and the background of age, gender and prior education achievement and academic performance. Subjects were social science undergraduate studies at a University in Scotland: structural equation modelling identifies the big five personality factor scores account for between 32.5% and 43.6% of the variance across scores on the three approaches to learning dimensions. For the big five personality factor and the three approaches to learning dimensions were found to be poor predictors of academic performance. A linear regression analysis with academic performance as the dependent variable accounted for 24.1% of the variance in performance. Our investigations suggest that approach to learning is a subject of personality. However, we conclude that it make sense to measure these two groups of variables separately in educational setting.

Lama and Sehana (2013) Conduct a research on the relationship between personality traits and personality achievement among University subjects. The aim of the study is to determine the significant difference between high and low

achievers specific to gender in personality traits factors (A,B,C and D) Among a sample of 275 adolescence in the age group of 18 to 22 years studying in the Tafila Technical University are selected as a randomized cluster sample of the study from the population . The results indicates that high achievers are affectothymic than the low achievers, high achieving females are affectothymic than high achieving males, low achieving males and low achieving females. Additionally, the results indicate that high achievers are more intelligent and bright than the low achievers: high achieving females show the highest scholastic capacity than the high achieving males, low achieving males and the low achieving females. It also indicates that the high achievers are more emotionally calm, stable and face reality appropriately than low achievers. But there is no difference between high and low achievers in excitability.

Gamze and Sail (2010) conduct a correlation study of Physics achievement, learning strategy, attitude and gender in an introductory Physics course. The study investigates the relationship between multiple predictors of Physics Achievement including reported use of four learning strategy clusters (elaboration, organization, comprehension monitoring and rehearsal, attitudes towards physics) in order to determine the significant predictors of physics achievement.

The subjects involved in this study were 357 first and second year pre-service teachers at Dukuzeyhil University in Turkey. Subjects were asked to fill out a personal information form. The revised learning strategy scale for Physics learning (R-LSSPL) and the scale for attitude towards Physics (SAP) were used. Correlation analysis indicates significant relationship between some variables of the study. Multiple regression analysis (stepwise) revealed that learning strategies accounted for 73% of the variable in physics achievement and all the learning strategies clusters ($p < 0.001$) were found to be statistically significant predictors of physics achievement.

Dia, Martin and George (2011) conduct a research on personality traits and general intelligence as predictors of academic performance: A structural equation modeling approach. Result indicates that personality, after controlling for general intelligence, predicts academic performance. Academic performance was measured by grade in school subjects. Intelligence, contentiousness, extraversion and neuroticism predict academic performance and the facets of the traits were associated with different subjects.

Marzich (2010) conducts a research on relationship between learning strategies and academic achievement: based on information processing approach. The aim of the study was to compare learning strategies between under- achievers and

upper achievers students (including both genders in 3 school grades). The study was designed in introspective framework. Subjects were high school students in Qazvin province selected by random multi-level sampling method. Among the samples, 290-persons groups were chosen as upper and under achievers. Students' participants completed the learning and study skill inventory (LSSI) form.

This inventory assesses the cognitive learning strategies. To test the hypotheses, independent t- test, one way ANOVA and multivariate regression method were used. Findings show that upper student used cognitive and Meta – cognitive strategies more than the lower group (p< 0.001). Girls used (LSSI) Meta cognitive strategies which can predict academic achievement more effectively than cognitive strategies.

NEUROTIC AND STABLE TYPES OF PERSONALITY

A neurotic individual has a strong emotional liability and over activity, he tends to be emotionally over responsive and encounter difficulty in calming down. Such a person complains of vague, somatic, upsets and report many worries, anxieties and irritating emotional feelings. He may develop neurotic under stress, which fall short of actual neurotic collapses.

Objectives of the study

i. To find out the differences between learning strategies of neurotics and stable male and female students of senior secondary schools
ii. To identify the differences between academic performance of neurotics and stable male and female students of senior secondary schools

Research Questions

The following research questions are stated to guide the study:

i. How does the academic performance of stable male and female students of senior secondary school differ?
ii. To what extent does the learning strategy of neurotics male and female students of senior secondary school differ?

Hypotheses

The following null hypotheses were formulated for testing at 0.05 level of significance:

HO_1: There is no significant difference in the Learning strategies of stable male and female students of senior secondary school.

HO₂: There is no significant difference in the academic performance of neurotics male and female students of senior secondary school

Table 1: Male and Female Schools ,Number of Students and percentage.

S/N	Male Schools	No of SSI Stds.	%	S/N	Female Schools	No of SSI Stds	%
1	Nagarta College Sokotoi	32	10.0	6	Army Day Sec.School Sokoto	34	10.0
2	Unity Girls Sec.. School Bodinga	32	10.0	7	Sani Dingyadi Sec. School. Sokoto	32	10.0
3.	G.G.S.S. Tambawal	32	10.0	8	Ahmadu Bello Academy,, Sokoto	32	10.0
4	G.G.C.. . Sokoto	32	10.0	9	Nana Day Secondary Schoo, Sokotol	32	10.0
5	Sultan Abubakar College Sokoto	32	10.0	10	Sultan Atiku Secondary School, Sokoto	32	10.0
Total		160	50.0			160	50.0

Instrumentation

The following instruments were adapted to collect data for the research:

i.   Learning and Study Strategy Inventory (LASSI) to measure Learning Strategies.

ii.   Junior Eysenck Personality Inventory (JEPI) to measure Personality types

iii.   2016/2017 Senior School Certificate Examinations results In English Language, and Mathematics were used to measure Academic Performance of students.

Administration of the Instruments

The three instruments namely: (Learning and Study Strategy Inventory, Junior Eysenck Personality Inventory and 2016/2017 Senior School Certificate Examinations results In English Language and Mathematics) were administered by the researcher with the assistance of some Research Assistants. Students were encouraged to read the instruction carefully before attempting to answer the questions.. Subjects were encouraged to ask questions before and during the administration of the instruments.

The Learning and Study Strategy Inventory was the first to be administered within 40 minutes followed by Junior Eysenck Personality Inventory which lasted for 25 minutes. An interval of 30 minutes was used for break The scores of 2016/2017 Senior School Certificate Examinations results in English Language and Mathematics were used to measure Academic Performance of students.

Data Analysis

The responses from 320 participants were analyzed from the data. All participants were given equal treatment as respondents. A significant level of 0.05 was used as the bases of acceptance and rejection of the null hypotheses generated. The statistical analysis of data was carried out to test the null hypotheses of the study.

Method of Data Analysis

The received inventory/questionnaire was treated using simple statistical analysis to show frequency distribution of the various responses. From the frequencies of responses, means, percentages and standard deviation were computed. Two-tailed t-test was the statistical tool employed to test the hypotheses of the research.

Research Question One

The first research question seeks to find out how the academic performance of stable male and female students of senior secondary school differ? To answer the above question standard deviation and mean were used for the analysis reported in table 1 below:

Table 2: Descriptive Statistics of Academic Performance of Students with Stable Personality by Gender

Gender	Mean	Standard Deviation
Male	48.60	6.60
Female	47.80	7.20
Overall mean/Std. Dev.	48.20	7.00

Table 4.8 shows the academic performance of groups of students with stable personality by gender. From the table, the male students with stable personality recorded a mean score of 48.6 with a standard deviation of 6.60 while the female

students in the same category had a mean score of 47.8 with a standard deviation of 7.20.The overall mean and standard deviation are 48.2 and 7.00 respectively.

Research Question two

How do academic performances of male and female students with neurotic personality differ? To answer this research question, means and standard deviations were used for the analysis reported in table 4.9.

Table 3: Descriptive Statistics of Academic Performance of Students with Neurotic Personality by Gender

Gender	Mean	Standard Deviation
Male	18.43	5.62
Female	17.84	6.24
Overall Mean/Std. Mean	18.14	6.00

Table 4. shows the academic performance of groups of students with neurotic personality by gender. From the table, the male students with neurotic personality recorded a mean score of 18.43 with a standard deviation of 5.62 while the female students in the same category had a mean score of 17.84 with a standard deviation of 6.24.The overall mean and standard deviation are 18.14 and 6.00 respectively.

Hypothesis One: There is no significant difference in the academic performance of male and female students with stable personality. The hypothesis was tested using t-test statistical technique. Results were presented in table 4.

Table 4: Two-tailed t-Test Result In Respect of Mean Responses of Male and Female students with Stable Personality.

Gender	Mean	SD	N	df	t-value	Std.Error	Sig.@0.05	Decision
Male	48.60	4.60	52	93	2.53	0.1455	0.0000	significant
Female	47.80	5.20	43					

Result in table 4.14 showed that there was significant difference between the academic performance of male and female students with stable personality. As a result, the fifth hypothesis was rejected. In other words, male and female students from this category differed significantly in their academic performance.

Hypothesis Two: There is no significant difference in the academic performance of male and female students with neurotic personality. The hypothesis was tested using t-test statistical technique. Results were presented in table 4.15

Table 5: Two-tailed t-Test Result In Respect of Academic Performance of Male and Female Students with Neurotic Personality.

Gender	Mean	SD	N	df	t-value	Std.Error	Sig.@0.05	Decision
Male	18.43	5.62	35	63	0.57	0.1455	0.3424	Not significant
Female	17.84	6.24	30					

Result in table 5 Shows that there was no significant difference between the academic performance of male and female students with neurotic personality. As a result, the sixth hypothesis was accepted. In other words, the male and female students with neurotic personality did not differ significantly in their academic performance.

Summary of Findings

The findings of the first research question as indicated in table 5 revealed that the mean score of the stable male was 48.60 with standard deviation of 7.20. The overall mean was 48.20 with 7.00 as standard deviation respectively. The findings of the second research question as indicated in table 4 revealed that the mean of the neurotic male is 18.43 with standard deviation of 5.62,while the mean score of the neurotic female is 17.84 with standard deviation of 6.24. The overall mean was 18.14 with 6.00 as standard deviation. The findings of the first hypothesis showed that there was significant difference in the academic performance of male and female students with stable personality as shown in table 4. On the second hypothesis, findings indicate no significant difference in the academic performance of male and female students with neurotic personality as shown in table 5.

Discussion

Neurotic category is the next personality group as shown in table 4.5.It has a mean score of 18.6 and a standard deviation of 5.34. A neurotic individual has a strong emotional liability and over activity. He tends to be emotionally over responsive and encounter difficulties in calming down. Such individual reports many worries, upsets anxieties and irritating emotional feeling. The possession

of these characteristics could be responsible for being at disadvantage in academic performance. The mean score of 18.6 is the lowest mean scores among the four personality groups. This finding is in conformity with the findings of previous researches such as Vabaza, Kline and Maqsud cited in (Kalgo 1993)

The group of personality indicated in the table 4. is stability. It has the highest mean scores of 42.2 and a standard deviation of 6.06.A stable individual shows cheerfulness, even temperedness and contented with life. Nothing upsets him or worries him much. He does not have emotional liability and therefore doesn't encounter difficulty in calming down. His level of anxiety is very minimal, and does not have much worries or irritational emotional feelings. This particular characteristics could be responsible for putting him at an advantage in academic performance over other groups of personality. Other factors responsible for the difference in academic performance include: methodology of teaching, motivation and the nature of the learning task and environment.

On the first research question, findings indicated in table 4. that the mean score of stable male is 48.60 and a standard deviation of 6.60,while

the mean score of their female counterpart is 47.80 with a standard deviation of 7.20 .An examination of the results indicates that the stable male has the highest mean score of 48.60 against their female counterpart of 47.80. On the extent of difference, results showed that both stable male and stable female differ in their academic performance.

On the second research question, findings shown in table 4.9 indicates that the mean score of neurotic male is 18,43 and a standard deviation of 5.62 while the mean score of neurotic female is 17.84 with a standard deviation of 6.24.A closer look at the mean scores shows that neurotic male has the highest mean score of 18.43 against their female counterpart of 17.84.The results indicates that both neurotic male and neurotic female differ in their academic performance.

The first hypothesis states that there was no significant difference in the academic performance of male and female students with stable personality. The hypothesis was rejected. It implies that there was significant difference in the academic performance of male and female students with stable personality. Table 4.15 revealed that the mean score of stable male is 49.60, while that of stable female is 47.80.An examination of the scores shows that the stable male has the highest mean score of 49.60 when compared with the stable female who had a mean score of 47.80. The present study found significant difference in the academic performance of male and female students with stable personality. A stable individual shows cheerfulness and even temperedness. He is contended with life. He does not have emotional liability and do not have difficulty in calming

down. His level of anxiety is very minimal and do not have irrational feelings. This particular attributes of introverts could be responsible for putting him at an advantage in academic performance over other groups of personality. Other factors responsible for difference in the academic performance of stable students is teaching methods, motivation, socio- cultural background and nature of the learning task.

The second hypothesis states that there was no significant difference in the academic performance of male and female students with neurotic personality. The hypothesis was accepted. It implies that there was no significant difference in the academic performance of male and female students with neurotic personality. Table 4.15 shows that the mean score of neurotic male is 18.43, while that of the female students is 17.84. An examination of the mean scores revealed that neurotic male has the highest mean scores of 18.43 when compared with neurotic female of 47.80.The present study did not found any significant difference in the academic performance of male and female students with neurotic personality. A neurotic individual is known for his emotional liability he tends to be emotionally responsive and having difficulty in calming down. He reports many worries and has high level of anxiety and emotional instability. The possession of high level of anxiety coupled with emotional imbalance put a neurotic student at a disadvantage in academic performance. Similar findings were reported by Cunningham Wankowski and Kline cited in Kalgo (1993) who submitted that neurotic personality is not related with academic achievement.

Conclusion

The study attempted to determine the differences among learning strategy and academic performance of neurotics and stable male and female students among senior secondary schools in sokoto state and had the following conclusions:

1. There was significant difference in the academic performance of male and female students with stable personality as revealed in table 4
2. There was no significant difference in the academic performance of male and female students with neurotic personality as shown in table 5

Recommendations

In view of the findings mentioned above, it is recommended among other things:

1. The learning strategy and personality of students should be given prominence by secondary school instructors; and should directly reflect in their teaching methods.

2. Teachers should help students in the development of good personality and assist in the realization of its full potential.

3. Students should identify their personality groupings and use the right learning strategies in order to facilitate their academic performance.

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