

STUDY OF ASSOCIATED FACTORS AS CORRELATES OF ACADEMIC ACHIEVEMENT AMONG POST-GRADUATE PSYCHOLOGY STUDENTS OF NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA.

AKEEM A. KENKU (PhD)

Department of Psychology, Nasarawa State University, Keffi

Email: akeemkenku@nsuk.edu.ng.

&

IDOWU M. OGUNKUADE (PhD)

Nigerian Copyright Commission Hqrts, Abuja.

Email: idowukuade@yahoo.com.

Abstract

Academic achievement of students especially at the post-graduate level is not only a pointer to the effectiveness or otherwise of schools but a major determinant of the future of students in particular and the nation in general. This study examined the associated factors as correlates of academic achievement among post-graduate psychology students of Nasarawa State University, Keffi, Nigeria. Eight-nine (89) participants which comprise of thirty-three (33) Male = 37% and fifty-six (56) Female = 62.9% took part in the study. A standardized structured self-report questionnaire which has five sections was used for data collection and data collected were analyzed using descriptive and inferential statistics; with four (4) hypotheses tested at 0.05 level of significance, using Pearson product moment correlation analysis and independent sample t-test. Finding indicates that there is no positive relationship between academic stress and academic achievement ($r=0.103$; $p>0.05$). Furthermore, result shows insignificant relationship between reading culture and academic achievement ($r=-0.087$; $p>0.05$). Also, result revealed no relationship between study anxiety and academic achievement ($r=-0.160$; $p>0.05$). Lastly, result showed no significant difference between male and female students on academic achievement ($t= 0.243$, $df = 87$, $P= 0.05$). Based on these findings, the study concluded that there is no relationship among the associated factors (academic stress, reading culture and study anxiety) and academic achievement among the participants. The study recommends that there is need for further research in this area since contradicting findings have been reported.

Keywords: Academic stress, Reading culture, Study anxiety, Postgraduate students, Academic achievement.

Introduction

In recent decades, education has been a fundamental human right to all people irrespective of their sex, race or economic status, as it is the key to sustainable social, economic and political development (McMillan & Schumacher, 2010). The social and economic development of the country is directly linked with students' academic achievement. In this view, students' academic achievement plays an important role in producing the best quality graduates who

will become great leader and manpower for the country, thus, responsible for the country's economic and social development (Newton, 2015). Owing to this revelation, academic achievement of learners has attracted attention of scholars, parents, policy makers and planners. Adeyemo (2001) opined that the major goal of the school is to work towards attainment of academic excellence by students. According to him, the school may have other peripheral objectives but emphasis is always placed on the achievement of sound scholarship. Besides, virtually everybody concerned with education places premium on academic achievement; excellent academic achievement of a child is often the expectation of parents (Osiki, 2001; Battle & Lewis, 2002). It is regarded as the hub around which the entire educational system revolves. According to Narad and Abdullah (2016), the success or failure of any academic institution is determined by the academic achievement of students. Malik & Singh (2016) also claimed that student academic performance has a direct impact on a country's socio-economic development. In a similar vein, Aremu & Soka (2002) opines that students' academic achievement provides a foundation for knowledge acquisition and skill development.

In this light, academic achievement is the extent to which academic goals of student, teacher or institution are being actualized (Idika, Onuoha, Nji & Eze, 2018). According to Ricarda (2017) academic achievement denotes performance outcome that indicate the degree to which a person has proficient specific goals that were the focus of activities in instructional environment, especially in schools, colleges, and universities. Also, academic achievement is the sum total of a student's performance after the content of a curriculum has been taught or delivered by the teacher (Yusuf, Onifade & Bello, 2016). Academic achievement as stated by Akbay & Akbay (2016) is the knowledge acquired and skills developed in school subjects, generally indicated by marks obtained in tests in annual examination.

Academic stress is considered too in this study to impact or influence student academic achievement. Also, research has considered academic stress to be important factor in student's academic achievement. Stress is anything that poses a challenge or a threat to the well-being of a person. It can be experienced anywhere, either in the home or even in the school. Students are mostly affected by academic stress, as they are subjected to different kinds of stressors, such as the pressure of academics and the obligation to succeed (Saini, 2012; Ramaprabou & Dash, 2018). According to Singh (2011), stress negatively affects academic performance and could also become a vicious circle of continually increasing stress and decreasing performance. Levels of stress depend on several factors like academic competition, family issues, social interactions and high work load. Adolescent students often cannot manage stress effectively, leading to further complications such as anxiety and depression (Payne & Stern, 1985; Palani, 2012).

Reading culture of students may be relevant to the prediction of academic achievement because it is possible that students' achievement may be related to their reading habits. That is, students with poor reading culture may obtain lower grades than those students with better reading culture (Bashir & Mattoo, 2012; Asagwara, 2000). On this note, reading culture is well-planned and deliberate pattern of study which has attained a form of consistency on the part of students toward understanding academic subjects and passing examinations. Reading habit determines the academic outcomes of students to a great extent (Levine, Waite &

Bowman, 2007; Okwilagwe, 1998). For example, students who possess good reading habits can increase their critical reasoning skills and ultimately have better academic outcomes; in addition, even the reading of non-academic books enhances students' language skills. However, weak reading habits negatively affect students' comprehension, thus affecting their performance and advancement (Anderson, Wilson & Fielding, 1988).

Study anxiety is worthy of note in this current study. Thus, study anxiety is an undesirable reaction toward evaluation. It is the most important problem that is faced by the students in their education (Dinga et al., 2018). Test anxiety is a psychological condition in which students experience extreme distress and anxiety in test situations. A little anxiety during exams is required that will help students to get motivated and learn (Alam, 2017). Mounting up so much of anxiety will not help the student to perform rather it will influence the academic performance negatively (Oluoch, Aloka, & Odongo, 2018). The psychological symptoms that build up in students before a test includes restlessness, unusual body movements, difficulty in concentrating, insomnia, fatigue, muscle contraction, abdominal pain, and tremors (Habibullah & Ashraf, 2013). Generally, most of the study's results mainly indicate a negative relationship between test anxiety and academic achievement (Dodeen et al., 2014; Syokwaa et al., 2014; Shishigu, 2018; Saini, 2012; Gichohi, 2019). These research findings imply that increase in test anxiety lowers academic achievement of students.

Given the above, several studies have found that improvement in the academic achievement of students is dependent on a combination of many factors (Amuzu, Ankalibazuk, & Abdulai, 2017; Narad & Abdullah, 2016; Okolie, 2014; Farooq, Chaudhry, Shafiq & Behanu, 2011). Others have also attributed it to environmental, personal, social, psychological and economic factors (Sign, Malik & Sign, 2016; Ali et al. 2013; Mushtaq & Khan, 2012). Most of these studies tend to focus on a factor or focuses on limited factors that contributes to academic achievement. For example, Aremu & Soka, (2002), focused on only socio economic status and parent's level education. These findings from the previous studies is a combination of home, school, students and teacher factors (Narad & Abdullah, 2016; Farooq, Chaudhry, Shafiq & Behanu, 2011) as well as environmental, personal, social, psychological and economic factors (Sign, Malik & Sign, 2016; Ali et al. 2013). Accordingly, this contextual and conceptual research gap motivated the current study to examine the associated factors as correlates of academic achievement among post-graduate psychology students of Nasarawa State University, Keffi, Nigeria.

Statement of the Problem

Post-graduate studies are a challenging time for students to adapt to the multi-functional roles and responsibilities of a university life. Due to this development, low academic achievement of post-graduate students is a global phenomenon (Adeyele & Yusuf, 2012). Public opinion blames this phenomenon of poor achievement of students on the falling standard of education. The question at this juncture is what is responsible for the poor achievement of these students in education, particularly in psychology as a discipline or course? Many educationists tend to shift the blame on the teaching methodology adopted by the lecturers and lack of fund from the government to provide quality textbooks. However, these might not be the main reasons why post-graduate psychology students could not achieve optimally.

In this view, many educational researchers have taken keen interest in finding out the possible factors influencing academic achievement in the Nigerian context (Igbudu, 2015; Oludipe, 2012; Okwilagwe, 1998; Bashir & Mattoo, 2012). Such studies have revealed that learners' academic achievement is affected by both psychological and contextual factors such as principals' leadership styles (Obama, Akinyi, & Orodho, 2015), interpersonal conflicts (Ayoma, 2013; Akbay & Akbay, 2016), and students' characteristics (Ogweno, Kathuri, & Obara, 2015). Despite all these, little emphasis has been given on academic achievement among high school learners. It therefore remains uncertain how psychosocial factors accounts for academic achievement among post-graduate students in Nigeria. It is within this background that this study aims to investigate the study of associated factors as correlates of academic achievement among post-graduate psychology students of Nasarawa State University, Keffi, Nigeria.

Objectives of the Study

Based on the relevant review of studies on the study variables, the fundamental objective of the study is to investigate the study of associated factors as correlates of academic achievement among post-graduate psychology students of Nasarawa State University, Keffi, Nigeria. The specific objectives are as follows:

1. To investigate whether there is significant positive relationship between academic stress and academic achievement among post-graduate psychology students of Nasarawa State University, Keffi, Nigeria
2. To investigate whether there is significant positive relationship between reading culture and academic achievement among post-graduate psychology students of Nasarawa State University, Keffi, Nigeria
3. To investigate whether there is significant relationship between academic study anxiety and academic achievement among post-graduate psychology students of Nasarawa State University, Keffi, Nigeria
4. To investigate whether there is significant difference between male and female on academic achievement among post-graduate psychology students of Nasarawa State University, Keffi, Nigeria

Hypotheses

The following hypotheses are formulated and tested at 0.05 level of significance.

1. There will be significant positive relationship between academic stress and academic achievement among post-graduate psychology students of Nasarawa State University, Keffi, Nigeria.
2. There will be significant positive relationship between reading culture and academic achievement among post-graduate psychology students of Nasarawa State University, Keffi, Nigeria.
3. There will be significant positive relationship between study anxiety and academic achievement among post-graduate psychology students of Nasarawa State University, Keffi, Nigeria.
4. There will be significant difference between male and female post-graduate students on academic achievement.

Review of Literature

Relationship between Academic stress and Academic achievement

Relationship between academic stress and students' academic achievement has been explored by different researchers. For instance, Llego, Gabriel & Corpus (2018) conducted a correlational study that explored the relationship of stress level on nursing students' academic performance. The results revealed that the respondents have a moderate level of stress, and the primary source of their academic works was also the primary source of their stress. The researchers concluded that as the respondents' stress level increases, their academic performance decreases. According to Singh (2011), stress negatively affects academic performance and could also become a vicious circle of continually increasing stress and decreasing performance. Another study by Ang & Huan (2006), stressed that levels of stress depend on several factors including academic competition, family issues, social interactions, and high work load. Adolescent students often cannot manage stress effectively, leading to further complications such as anxiety and depression (Payne & Stern, 1985; Palani, 2012). According to some surveys, in the academic environment, information overload, high competitiveness unrealistic ambitions, high expectations, limited opportunities, and academic pressure, are some of the common sources which create stress in students (Sinha, Sharma, & Nepal, 2001). Misra, Mckean, West & Russo (2000) pointed out that meeting the assessment deadlines is a major source of stress. Consequently, Bennett (2003) reported a similar finding that stress is significantly correlated with poor academic performance in his study of business undergraduates (Chandra et al., 2015; Dutta & Dewri, 2022). But, it is also acceptable to an extent, where there are students who proved their calibre irrespective of their academic stress. However, a handful of studies have shown that there is no association between stress among medical students and academic achievement. For instance, a study done in Saudi Arabia found that academic achievement is not associated with stress level (Ramaprabou & Dash, 2018).

Relationship between reading culture and academic achievement

With respect to the connection between student's reading culture and their relationship with their academic achievement was indicated by many researchers, but differs in their results and outcomes (Levine, Waite & Bowman, 2007). For instance, findings by Denga (1984) who noted that students who regard study to be distasteful, unwholesome and unpleasurable are those who have poor reading or study habits, while those who regard it as necessary are those who have effective study habits. Also, students who imbibed good reading culture or habit feel free and comfortable to read their books always, and they are likely to perform better in their educational pursuits. It can be said that poor reading culture viz-a-viz, reading habit results to scoring poor grades in classroom works and thus low academic performance. Similarly, Onyejiaku (1989) study on reading habits revealed that whenever a student adopts effective reading habit, his learning skills, his understanding of learning materials and his memory processing both test and examination are improved appreciably. Cultivating culture of reading has been a necessary tool to academic performance. Extensive reading has been found to be the most effective way of developing reading skill among students which eventually improving their academic performance (Okwilagwe, 1998; Bashir & Mattoo, 2012; Anderson, Wilson & Fielding, 1988). Some other findings acknowledge the importance of reading and the study confirmed that reading culture has impact on academic performance of students in Agricultural Science. Their poor or bad reading habits could partly be held

responsible for general poor performance that the school systems usually record in both internal and external examinations (Issa, Aliyu, Akangbe & Adededeji, 2012).

Relationship between Study anxiety and academic achievement

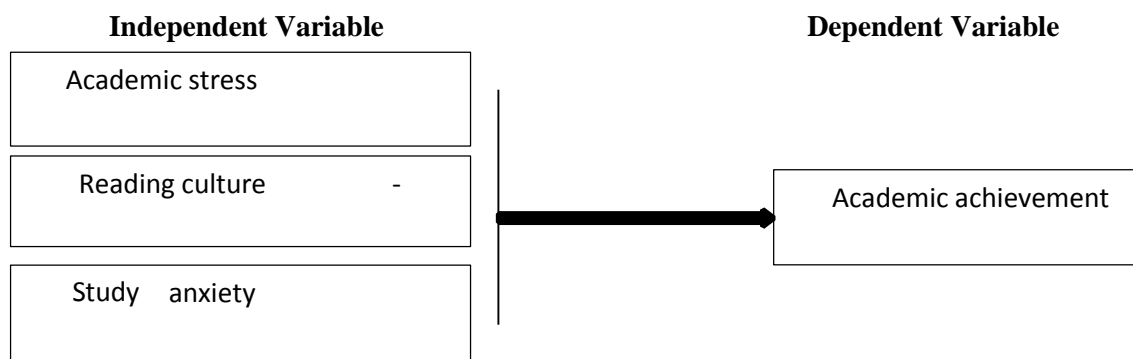
The research by Eysench and Derkshen (2009), found that anxious individuals find it harder to avoid distractions and take more time to turn attention from one task to the next than their less anxious peers. They further stated that a lot of the negative effects of anxiety appear to be caused by difficulties with controlling attention. Furthermore, the student's level of anxiety can cause a student's academic performance to suffer even more depending on the length of time they suffer from test anxiety. According to interference model, students with study anxiety focus on irrelevant stimuli, physical distractions and inappropriate cognitions, which negatively affect their performance (Sarason, 1975). This is not to say that some dosage of anxiety is not needed at all. Normally some degree of anxiety or arousal is needed by individual to succeed in academic endeavor (Farooqi, Ghani and Spielberg, 2012). In Nigerian context, studies by (Oludipe, 2009; Akanbi, 2010; Adewuyi, et. al., 2012) have also attested to the fact that low test-anxious students performed better than high test anxious students on both numerical and non-numerical subjects (Onyeizugbo, 2010). Conversely, available reports suggests that test anxiety is not entirely bad, as a low level of test anxiety is normal and necessary among the students in order to maintain focus and to galvanize them into action preparing, plotting and perfecting strategies that will guarantee optimum success in the examinations. It is needed to motivate and help the students to stay mentally and physically alert (Birjandi & Alemi, 2010).

Gender differences and academic achievement

Across countries, boys and girls differ in academic achievement. According to Reimer (2002), numerous studies assert that gender is a critical factor in determining the academic achievement and vulnerability of individuals. Studies on the impact of gender on academic achievement give mixed results. For instance, some propose that males perform better than females in academics; others argue that the reverse is the case. Vernon (2002) reported that many comparisons show average scores of boys and girls to be the same on general intelligence test. Other research has also shown a decline in the differences between the genders in the past few decades on standardized test, suggesting that the more exposure that women are getting to math and science classes, the better their scores (Issa, Aliyu, Akangbe, & Adededeji, 2012). On the other hand, general statistics in education show that females outperform males at different stages in the school system, have better grades, and reach post-school qualifications in higher numbers (Gibb, Fergusson and Horwood, 2008; Voyer and Voyer, 2014). Moreover, in Nigeria, Igbudu (2015) conducted a study on the influence of gender on students' academic achievement in government subject in public secondary schools in Oredo Local Government area of Edo State. The study reported significant gender differences in academic achievement with females performing better than males. Similarly, Oludipe (2012) conducted a study on gender differences in Nigerian Junior Secondary Students' academic achievement in basic science using cooperative learning strategy. The study reported no significant differences in academic achievement of male and female students. In Zambia, Mwaba, Kusanthan & Menon (2015) studied gender differences in academic performance of psychology students at the University of Zambia. The study reported that, although gender gap continues to reduce, males tended to perform better than

females especially at tertiary level and in traditionally masculine disciplines such as mathematics and physics.

Fig 1: Conceptual Framework



Methodology

Design

The study adopted an ex-post facto research design using survey method. This is because the variables of the study were not manipulated. This co-relational approach looked into the statistical relationship between independent variables (academic stress, reading culture, and study anxiety) and dependent variable (academic achievement). Thus, the study used the quantitative data collection techniques to achieve its objectives in the target region for the study. According to Basavanna (2000), a correlation mode of research is an appropriate choice in cases where the researcher seeks to establish the degree of relationship between two variables of behaviour in a group.

Setting

This study was conducted among male and female post-graduate psychology students of Nasarawa State University, Keffi, Nigeria. The setting is most suitable for this type of study because of the strategic location of the institution, as well as the study objectives.

Participants/Sampling and Sampling technique

The target population for the study consist eighty-nine (89) students which comprise of thirty-three (33) male and fifty-six (56) female post-graduate psychology students of Nasarawa State University. Participants were randomly selected, using purposive sampling technique which involves the selection of participants in such a way that it would follow the purpose for which the study has been designed to strictly achieve by considering only male and female post-graduate psychology students of Nasarawa State University.

Instruments

Relevant data were gathered through the use of validated instruments (questionnaires), which comprises of five sections (A-E).

Section A focused on the demographic characteristics of the participants with questions such as: sex, age, religion, marital status, and family type.

Section B focused on study anxiety measured with Sokan Examination Anxiety Scale (SEAS), designed by Sokan (1998). The SEAS is an 18-item instrument measuring examination anxiety expressed with statements concerned with ones feelings towards examination. The Sokan Examination Anxiety Scale adopts a true or false response pattern with true response scored as one (1) while the false response scored as zero (0). The score is calculated in percentages e.g. a score of 18 is 100%. Thus any fraction score of 18 is converted to a percentage. The reliability coefficient for Sokan Examination Anxiety Scale is 0.75, while a current study had a Cronbach Alpha score of .72. This study made use of the composite structure of this questionnaire.

Section C focused on Academic Achievement, assessed by students' performance test. Questions were selected from past question papers of the subjects in schools to prepare the performance test. The questionnaire and the performance test papers were all numbered serially from 1-100. Each sampled students was given a specific questionnaire to fill and was also given a performance test with a corresponding number to the questionnaire, to ensure that one student's performance was not recorded against another student's study habit. The questionnaire was face-validated by experts in test measurement and evaluation. The instrument was pilot tested to ascertain reliability using the test-retest method with a time gap of two weeks between the two tests. The reliability estimate for the variables ranged from 0.7345 to 0.8255. The estimates were considered well enough for use in this study. The data gathered with the instrument were analyzed using the Pearson Product Moment Correlation.

Section D was the Reading Culture Questionnaire (RCQ) developed by Thomas, Omotoke & Ademola (2016). It consisted of 12 items with a four-point likert-scale of Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1). All items were positively worded. Total score provides information about a unidimensional construct. The obtainable score ranges from 12-48. Higher score represents more efficient reading culture. The measure has content validity as reported by authors. The Cronbach's Alpha of RCQ in original study was 0.81. The present study obtained a reliability of .63. Kumari & Gartia (2012) reported a Cronbach's alpha of .69. Academic achievement of the participants was measured through grades.

Section E was the Academic Stress Inventory designed by Uma & Manikandan (2013) was used to measure the academic stress experienced by the students on their academic endeavour. This inventory was based on the theoretical concept introduced by Lin and Chen (2009). The response categories are: Strongly agree, Agree, Neither agree nor disagree, Disagree, and Strongly disagree. Higher the score, higher the degree of stress experienced. Reliability coefficient of the instrument was established by calculating Cronbach Alpha and it was found to be .89. Authors of this inventory claims adequate face validity.

Procedure

The investigators contacted the University authority for permission to carry out the study in the Department of Psychology. After obtaining consent from the authorities concerned, including the Head of Department of Psychology, a self introduction and rapport with students was established. Thereafter, the instruments were administered to the participants after giving necessary instructions to them. Assurance was given to each of them that the information gathered from them would be used only for research purpose and their identity

would be kept confidential. All those enlisted for the study gave consent to participate. The completed instruments were collected back, checked for omission and incompleteness. The scoring was done as per the manual and entered the data into a spread sheet for further statistical analysis.

Data Analysis

The data collected was analyzed using Pearson Product Moment Correlation (PPMC) and independent sample t-test statistics, using Statistical Packages for Social Science (SPSS) version 16.

Results

Hypothesis 1: There will be significant positive relationship between academic stress and academic achievement among post-graduate psychology students of Nasarawa State University, Keffi, Nigeria. The hypothesis was tested using Pearson product moment correlation analysis, while the result of the analysis is hereby presented in Table 1.

Table 1: Summary table of Pearson product moment correlation results showing the relationship between academic stress and academic achievement among post-graduate students

Variables		Academic stress	Academic achievement
Academic stress	Pearson correlation	1	.103
	Sig. (2-tailed)		.335
	N	89	89
Achievement	Pearson Correlation	.103	1
	Sig. (2-tailed)	.335	
	N	89	89

The result of the Pearson correlation presented in Table 1 indicates that there is an insignificant correlation between academic stress and academic achievement of post-graduate students. The result implies that as academic stress increases; academic achievement decreases. Given this, there is no positive relationship between the academic stress and academic achievement among post-graduate students ($r=0.103$; $p>0.05$).

Hypothesis 2: There will be significant positive relationship between reading culture and academic achievement of post-graduate students. In this light, the hypothesis was tested using Pearson product moment correlation analysis, while the result of the analysis is hereby presented in Table 2.

Table 2: Summary table of Pearson product moment correlation results showing the relationship between reading culture and academic achievement among post-graduate students

Variables		Reading culture	Academic achievement
Reading culture	Pearson Correlation	1	-.087
	Sig. (2-tailed)		.420
	N	89	89
Academic achievement	Pearson Correlation	-.087	1
	Sig. (2-tailed)	.420	
	N	89	89

The result in Table 2 indicates that there was negative correlation between reading culture and academic achievement. Also, the result shows that as reading culture increases; student's academic achievement decreases. This meant that there was insignificant relationship between the two variables (reading culture and academic achievement) ($r=-0.087$; $p>0.05$).

Hypothesis 3: There will be significant relationship between study anxiety and academic achievement. Pearson product moment correlation analysis was used to test the hypothesis. The result is presented in Table 3.

Table 3: Summary table of Pearson Product Moment correlation results showing the relationship between study anxiety and academic achievement among post-graduate students

Variables		Study anxiety	Academic achievement
Study anxiety	Pearson Correlation	1	-.160
	Sig. (2-tailed)		.135
	N	89	89
Academic achievement	Pearson Correlation	-.160	1
	Sig. (2-tailed)	.135	
	N	89	89

The result in Table 3 revealed that there was negative correlation between reading culture and academic achievement. Also, the result shows that there is no relationship between study anxiety and academic achievement among post-graduate students ($r=-0.160$; $p>0.05$).

Hypothesis 4: There will be a significant gender difference on academic achievement among post-graduate psychology students of Nasarawa State University, Keffi, Nigeria. Independent sample t-test was used to test the hypothesis and result is presented in Table 4.

Table 4: Summary table of Independent sample t-test showing male and female significant difference on academic achievement among post-graduate psychology students of Nasarawa State University, Keffi, Nigeria

DV	Gender	N	Mean	SD	df	t	p
Academic achievement	Male	33	3.13	0.73	87	0.243	>.05
	Female	56	3.09	0.70			

Source: Field survey, (2022) insignificant at $p > .05$

As indicated in Table 4, it shows that female students have a mean of 3.09 and standard deviation of 0.70, while male students have a mean of 3.13 and standard deviation of 0.73. The result of the analysis revealed that means scores of male students is not significantly higher than the mean scores of female students. Where $t = 0.243$, $df = 87$, $P = 0.05$. Therefore, the alternative hypothesis is not accepted. This explains that there is no significant difference between male and female post-graduate students on academic achievement.

Discussions

The current study investigated the study of associated factors as correlates of academic achievement among post-graduate psychology students. The first hypothesis that states there will be a significant positive relationship between academic stress and academic achievement among post-graduate psychology students was not confirmed. The findings of this study showed that stress has an insignificant association with academic achievement. Reason for this may be due to difficult learning environments in the university which have consistently been reported; and of course, the challenges that university students face may translate into stress, hence affect students grade points. This finding fits in line with Selye (1976) proposal that long term exposure to stress may undermine the individual's biological and cognitive abilities to operate. The students' exposure to stressors may create intrinsic experiences such as negative physical and mental health outcomes that could interfere with their academic achievement. Similarly, this finding concurs with other studies who have reported a negative relationship between academic stress and academic achievement (Raffidah, Azizah, Norzaid, Salwani, & Noraini, 2009). These earlier studies gave evidence to the fact that students who experience academic burnout perform poorly in academics because they feel exhausted, used up, irritable, frustrated, detached, and cynical about academic tasks and responsibilities. Also, this finding is similar to Bennett (2003) who reported that stress is significantly correlated with poor academic achievement of students. On the other hand, result disagrees with some current studies which have failed to confirm the negative relationship between stress and academic performance (Awofodu & Emi, 2011; Jacob & Einstein, 2016).

The second hypothesis which states that there will be a relationship between reading culture and academic achievement was not upheld by the result. This outcome could be that some students find difficulties in reading; which may be due to the fact that they are not well-trained on how to read and acquire skills appropriately. Also, reading may not attract the interests of students or motivate them towards learning, and of course they may be reading for pleasure and choice. This result is consistent with the finding by Denga (1984) who noted that some students regard study to be distasteful, unwholesome and unpleasurable are those who have poor reading; as a result their achievement is poor. It is also similar to other studies that say

students read for different reasons and purposes, some of which include for pleasure, leisure, relaxation, information and for knowledge (Kamar, 2020). Conversely, result disagree with other reports that reading habit improves student's learning skill, understanding, and make them achieve success Onyejiaku (1989).

On the third hypothesis, that there will be a significant relationship between study anxiety and academic achievement. The probable reason is the fact that test anxiety makes it hard for students to concentrate on test and make them perform inadequately. Also, it is possible that first-year university students were found to be particularly prone to anxiety and experience high levels of stress due to the college life transition. This is in tandem with some recent literatures that students with study anxiety focus on irrelevant stimuli, physical distractions and inappropriate cognitions, which negatively affect their performance (Sarason, 1975). In addition, study result further supported the finding of other scholar that the student's level of anxiety can cause a student's academic performance to suffer even more depending on the length of time they suffer from test anxiety (Akanbi, 2010). However, the result disagree with Birjandi & Alemi, (2010) who suggests that test anxiety is not entirely bad, as it is needed to motivate and help the students to stay mentally and physically alert. This finding is not also in tandem with Aparnath, (2014) who postulates that mild or controlled anxiety levels enhances better performance while very diminished anxiety levels begets low performance.

Lastly, result reveals that there is no significant gender difference on academic achievement. This implies that there is no significant difference between males and females on their academic achievement. This result could be because these days, especially in the era of globalization, male and female individuals are seeking for knowledge equally as to aspire to the top echelon of many organizations. This study finding was in accordance with Vernon (2002) who reported that many comparisons show average scores of boys and girls to be the same on general intelligence test. More so, result reach agreement with the study of Reimer (2002) who asserts that despite gender is a critical factor in determining the academic achievement and vulnerability of individuals; but in some situations for male and female students are not different when it comes to learning and acquiring skills. The results have proven to be contrary to the study of the previous researches that reported that, although gender gap continues to reduce, males tended to perform better than females especially at tertiary level and in traditionally masculine disciplines (Mwaba, Kusanthan & Menon, 2015).

Conclusion/Recommendations

This present study was conducted to identify the associated factors as correlates of academic achievement among post-graduate psychology students of Nasarawa State University, Keffi, Nigeria. Based on the foregoing findings and discussions, it can be concluded that this investigation has indeed revealed that all the associated factors (academic stress, reading culture, and study anxiety); have insignificant relationship with academic achievement among post-graduate students. Also, there is no gender difference among the research participants. On this note, participation in decision making cultivates sense of ownership hence motivates students to carry out academic activities with enthusiasm and zeal. Furthermore, Universities should strengthen the counseling units and establish specific programmes to help students to avoid exhibiting anxiety problems when faced with the difficult tasks/moments. Contextually, there is requirement for further study based on larger

sample size as well as using more research methods. Lastly, relevant government Ministries Departments and Agencies in collaboration with other key stakeholders should strengthen in-service activities and workshops for lecturers to enable them get knowledge and skills on students' emotional reactivity, mental health issues and how they negatively affect students' academic achievement.

Limitations

The current study has the following methodological limitations. Firstly, the sample comprised of only post-graduate psychology students from a public institution in one county. This may limit the degree to which the results can be generalized to private schools and to other countries. Academic achievement may vary with contextual factors across different socioeconomic regions within the Nigerian schools. Other learners in private institutions and other countries might have shown a different pattern.

Secondly, this study was correlational in nature, and since academic achievement falls along a spectrum, there is an evident need for a longitudinal study to shed some more light in understanding the stage at which academic achievement begins in the learners' academic life. Thirdly, the research design was correlational and therefore the results and predictions made do not in any way imply cause and effect relationship.

References

- Adeyele, J.S. & Yusuf, Y.S., (2012). Effect of teaching method, choice of discipline and student-lecturer relationship on academic performance. *Journal of Economics and Sustainable Development*, 3(7), 1-7
- Adeyemo, D. A. (2001). Teachers' job satisfaction, job involvement, career and organizational commitments as correlates of student-academic performance. *Nigerian Journal of Applied Psychology*, 6 (2), 126–135.
- Akbay, T. & Akbay, L. (2016). On the causal relationships between academic achievement and its leading factors: a SEM Study. *Journal of European Education*, 6, (2), 123-134.
- Akanbi, A.O. (2010) Students and Teachers' Perception of the Causes of Poor Academic Performance in Ogun State Secondary Schools [Nigeria]: Implications for Counselling for National Development. *European Journal of Social Sciences*, 13, 229.
- Alam, M.J.F., (2017), "Relation between Academic Anxiety and Academic Achievement among school. *International Journal of Advance Research and Innovative Ideas in Education*, 3 (3) 2395-4396
- Ali, R., Ghazi, S. R., Khan, M., Shukat, H. & Faitma, Z. (2013). Effectiveness of Modular Teaching in Biology at Secondary Level. *Asian Social Science*, 6 (10), 1-19
- Aparnath, A.K. (2008). A study of academic anxiety of secondary school students with relation to their gender and religion. *The International Journal of Indian Psychology*, 1 (4), 2.
- Amuzu, S., Ankalibazuk, E, & Abdulai, S. I. (2017). Low performance of pupils in BECE: A Case Study of Sagnarigu District in Northern Region, Ghana. *International Journal of Advanced Research in Science, Engineering and Technology*,. 4(7), 4176-4184
- Anderson, R. C., Wilson, P.T., & Fielding, L. G. (1988). Growth in reading and how children spend their time outside of school. *Reading Research Quarterly*, 23, 285-303.

- Ang, R. P., & Huan, V. S. (2006). Academic Expectations Stress Inventory: Development, factor analysis, reliability, and validity. *Educational and Psychological Measurement*, 66, 522-539.
- Aremu, O. A & Soka, B. O. (2003). A multi-causal evaluation of academic performance of Nigerian learners: issues and implications for national development. *Department of Guidance and Counselling, University of Ibadan, Ibadan*.
- Asagwara, C. G. (2000). *Study habits dimensions and effective application in schools*. Calabar, Nigeria: Sea Fruit Company.
- Awofode A. D., & Emi, I. J. (2011). An Investigation into the Relationship between Stress and Academic Achievement of Biology Students in Nigerian Universities .A Case Study of Solarin University of Education Jagun, Ijebu-ode ogun state. *Science Journal of Psychology*, 1-1
- Ayoma, E.O. (2013). Influence of interpersonal conflicts on the student's academic performance in Kenya Certificate of Secondary Education in public secondary schools. A case of Homa-Bay County, Kenya, *University of Nairobi, Nairobi, Kenya*.
- Basavanna, M. (2000) *Dictionary of Psychology*. Allied Publishers.
- Bashir,I.& Mattoo, N. H.(2012). A Study on Study Habits and Academic Performance among Adolescents (14-19) years. *International Journal of Social Science Tomorrow*, 1(5), 1-5.
- Battle, J., & Lewis, M. (2002). The increasing significance of class: The relative effects of race and socioeconomic status on academic achievement. *Journal of Poverty*, 6(2), 21-35
- Bennette, J. (2003). *Teaching and Learning Science: A Guide to Recent Research and Its Applications*. Bloomsbury Publishing PLC England
- Birjandi, P., Alemi, M., (2010). The Impact of Test Anxiety on Test Performance among Iranian EFL Learners. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 1(4)
- Birjandi, P., Alemi, M., (2010). The Impact of Test Anxiety on Test Performance among Iranian EFL Learners. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 1(4)
- Birjandi, P. & Alemi, M. (2010). The impact of test anxiety on test performance among Iranian. *Broad Research in Artificial Intelligence and Neuroscience*, 1,4.
- Chandra, S., & Singh, A. (2015). A Comparative Study of Stress Level among Undergraduate Students.
- Denga, D.I. (1984). Locus of control and its relationship to occupational choice behaviour. *Applied Psychology*, 33 (3) 371-379
- Derakshan, N. and Eysenck, M.W. (2009) Anxiety, Processing Efficiency, and Cognitive Performance. *European Psychologist*, 14, 168-176.
- Dinga J. N., Mwaura A. M., & Ng'ang'a M. W. (2018). Relationship between achievement goal orientation and academic achievement among form three students in Kiambu County, Kenya. *International Journal of Education and Research*, 6(4), 53-68.
- Dodeen H. M., Abdulfattah F., & Alshumrani S. (2014). Test-taking skills of secondary students: the relationship with motivation, attitudes, anxiety and attitudes towards tests. *South African Journal of Education*, 34 (2), 1-10
- Dutta, D. & Dewri, D.J. (2022). Stress and its Impact on Academic Achievement among the Higher Secondary Students. *International Journal of Recent Advances in Multidisciplinary Topics*, 3(4), 1-5 *Education*, 3(3), 3354-3357.

- Farooq, M.S., Chaudhry, A.H., Shafiq, M., & Berhanu, G. (2011). Factors affecting students' quality of academic performance: A case of secondary school level. *Journal of Quality and Technology Management*, 7(2), 01-14.
- Farooqi, Y.N., Ghani, R. and Spielberger, C.D. (2012) Gender Differences in Test Anxiety and Academic Performance of Medical Students. *International Journal of Psychology and Behavioral Sciences*, 2, 38-43.
- Gibb, S. J., Fergusson, D. M., & Horwood, L. J. (2008). Effects of Single-Sex and Coeducational Schooling on the Gender Gap in Educational Achievement. *Australian Journal of Education*, 52(3), 301–317.
- Gichohi, N.W.M (2019). Influence of Anxiety on Academic Performance among Students at the Technical University of Kenya. *International Journal of Scientific and Research Publications*, 9(5), 1-16
- Habibullah, S., and Ashraf, J. (2013). Factors affecting academic performance of primary school children. *Pakistan Journal of Medical Research*, 52, 2-12
- Idika, E. O., Onuoha, J.C., Nji, I. A., & Eze, E. (2018). Determinants of academic achievement in economics in public secondary schools in Nsukka Local Government Area of Enugu State, Nigeria. *International Journal of Economics Education Research*, 1(1), 1-19
- Igbudu, U. (2015). Influence of gender on student academic achievement of government subject in public secondary schools in Oredo Local Government of Edo State, Nigeria. *Journal of Educational and Social Research*, 5(2), 123-141.
- Issa, A. O., Aliyu, M. B., Akangbe, R. B. & Adedeji, A. F. (2012). Reading Interest and Habits of the Federal Polytechnic Students. *International Journal of Learning & Development*, 2(1), 470-486.
- Jacob, T., & Einstein, O. (2016). Stress among Bachelor of Physical Therapy Students in Israel during Clinical Practice and its Association with Academic Achievements-Results of a Longitudinal Study. *The Internet Journal of Allied Health Sciences and Practice*, 14(1), 1-9.
- Kamar, K. Y. (2020). Relationship between Reading Habits and Students' Academic Performances of Secondary Schools in Sokoto State, Nigeria. *International Journal of Research and Innovation in Social Science*, 4(2), 242-245
- Kumari, R., & Gartia, R. (2012). Relationship between Stress and Academic Achievement of Senior Secondary School Students. *Asian Journal of Multidimensional Research*, 1(3), 152-160
- Levine, L. E., Waite, B. M., & Bowman, L L. (2007). Electronic media use, reading and academic distractibility in college youth. *Cyber Psychology & Behavior*, 10(14), 560-566.
- Llego, J., Gabriel, E., & Corpus, J. (2018). A Correlational Study on the Stress Level and Academic Performance of Nursing Students. *Conference: 59th Association of Deans of the Philippine Colleges of Nursing (ADPCN) Annual Convention*
- McMillan, J. H., & Schumacher, S. (2010). *Research in education. Evidence based inquiry*. (7th Ed.), Boston: Pearson
- Misra, R., McKean, M., West, S., & Russo, T. (2000). Academic stress of college students: Comparison of student and faculty perceptions. *College Student Journal*, 34(2), 236–245.
- Mushtaq, I., & Khan, S. N. (2012). Factors Affecting Students Academic Performance. *Global Journal of Management and Business Research*, 12(9), 10-23
- Mwaba, O.C.S., Kusanathan, T. & Anita, J. M. (2015). Gender differences in academic performance: A case of psychology students at the University of Zambia. *Studies in Social Sciences and Humanities*, 3(2), 131-138

- Narad, A., & Abdullah, B. (2016). Academic performance of senior secondary school students: Influence of parental encouragement and school environment. *Rupkatha Journal on Interdisciplinary Studies in Humanities*, 8(2), 12–19.
- Newton, M. A. (2015). Selected Correlates of Examination Anxiety and Academic Performance of Students in Public Secondary Schools in Khwisero Sub-County, Kakamega County, Kenya . *Ph. D. Thesis in Kenyatta University*
- Obama, M.O., Akinyi, L.E. & Orodho, J.A. (2015). Effect of principals' leadership styles on students' academic performance in public secondary schools in Homa-Bay County, Kenya. *Journal of Humanities and Social Science*, 20 (3), 51–60.
- Ogweno, P.O., Kathuri, N.N. & Obara, J. (2014). Influence of students characteristics on academic performance in secondary agriculture in Rachuonyo North Sub-County, Kenya," *International Journal of Education and Research*, 2(3), 12-25.
- Okolie, U.C. (2014). Management of woodwork workshop in tertiary institutions in Nigeria: An analytical study. *Malaysian Online Journal of Education*, 2(1), 20-36.
- Okwilagwe, O. A. (1998). *A New Approach to Reading Comprehension and Summary for schools and colleges*. Ibadan, Nigeria: Sterling – Horden Publishes (Nig) Ltd
- Oludipe, D.I. (2012). Gender differences in Nigeria Junior Secondary students' academic achievement in basic science. *Journal of Education and Social Research*. 2(1), 140-150
- Oluoch, J. N., Aloba, J. O., & Odongo, B. C. (2018). Test anxiety beliefs as predictor of students' achievement in chemistry in public secondary schools in Kenya. *International Journal of Psychology and Behavioral Sciences*, 8(4), 70-76.
- Onyeizugbo, E.U. (2010) Self-efficacy and test anxiety as correlates of academic performance. *Journal of Educational Research*, 1, 477-480.
- Onyejiaku, F.O. (1989). *Techniques of effective study*. Calabar: Wusen Press
- Osiki, J. O. (2001). Effects of remedial training programme on the management of learning acquisition defectiveness and poor study habits problems of selected subjects in a community grammar school. *Nigerian Journal of Applied Psychology*, 6 (2), 107 –115.
- Palani, K. K. (2012). Promising Reading Habits and Creating Literate Social. *International Reference Research Journal*, 2(1), 91.
- Payne, D.B. & J. R. Stern, J.R. (1985). Wavelength-switched passively coupled single-mode optical network," in *Proc. IOOC-ECOC*, 5, 585–590.
- Raffidah, K., Azizah, A., Norzaidi, M. D., Chong, S. C., Salwani, M. I., & Noraini, I. (2009). The Impact of Perceived Stress and Stress Factors on Academic Performance of Pre-Diploma Science Students. A Malaysia Study. *International Journal of Science Research in Education*, 2 (1), 13-26.
- Ramaprabou, V. & Dash, A.H. (2018). Effect of academic stress on achievement motivation among college students. *Journal on Educational Psychology*, 11(4), 1-5
- Reimer, M.S. (2002). Gender, risk and resilience in the middle school context. *Children and Schools*, 24 (1), 35-47.
- Ricarda, S. (2017). Motivation as a mediator of social disparities in academic achievement. *European Journal of Personality* 26, 335–349
- Sarason, I. G. (1975). *The test anxiety scale: Concept and research*. In I. G. Sarason, & C. D. Spielberger (Eds.), *Stress and anxiety*. pp. 193-217
- Saini, I. K. (2012). *Problem solving abilities of the senior secondary commerce students in relation to their entrepreneurial talent*. 1st Ed. India (Phagawara, Punjab): Lovely Professional University.

- Selye, H. (1976). *Stress in Health and Disease*. Reading: MA, Butterworth.
- Shishigu, A. (2018). Mathematics anxiety and prevention strategy: an attempt to support students and strengthen mathematics education. *Mathematics Education Trends and Research*, 1, 1-11,
- Singh, S. P., Malik, S. & Singh, P. (2016). Factors Affecting Academic Performance of Student. *Indian Journal of Research*, 5(4), 77-85
- Singh, Y. G. (2011). Academic Achievement and Study Habits of Higher Secondary Students. *International Referred Research Journal*, 3 (27), 2-10.
- Sinha, U.K., Sharma, V, & Nepal, M.K. (2001). Development of a scale for assessing academic stress: A preliminary report. *Journal of the Institute of Medicine*, 23, 96-102
- Sokan, B.O. (1998). Test Anxiety Inventory (TAI) arranged besides a 4-point (Likert) scale
- Syokwaa, K. A., Aloka, J. O., & Ndunge, N. F. (2014). The relationship between anxiety levels and academic achievement among students in selected secondary schools in Lang'ata District, Kenya. *Journal of Educational and Social Research*, 4(3), 403-413.
- Thomas, O. A., Omotoke, O., O., & Ademola, O. K. (2016). Assessment of Social Media Utilization and Study Habit of Students of Tertiary Institutions in Katsina State. *Journal of Education and Practice*, 7(3), 178 -188.
- Uma, K., & Manikandan, K. (2013). Academic Stress Inventory. Department of Psychology, University of Calicut, Kerala
- Uma, K., & Manikandan, K. (2013). Academic Stress Inventory. Department of Psychology, University of Calicut, Kerala
- Uma, K., & Manikandan, K. (2013). Academic Stress Inventory. Department of Psychology, University of Calicut, Kerala
- Uma, K., & Manikandan, K. (2013). Academic Stress Inventory. Department of Psychology, University of Calicut, Kerala
- Uma, K., & Manikandan, K. (2013). Academic Stress Inventory. Department of Psychology, University of Calicut, Kerala
- Uma, K., & Manikandan, K. (2013). Academic Stress Inventory. Department of Psychology, University of Calicut, Kerala
- Uma, K. & Manikandan, K. (2013). Academic Stress Inventory. *Department of Psychology, University of Calicut, Kerala*
- Yusuf, T.A., Onifade, C.A., & Bello, S.O. (2016). Impact of Class Size on Learning, Behavioral and General Attitudes of Students in Secondary Schools in Abeokuta, Ogun State Nigeria. *Journal of Research Initiatives*, 2(12), 1-16.
- Vernon, T. (2002). Teacher's comment and students' performance. *Journal of Educational Psychology*, 49 (44), 173-181.
- Voyer, D., & Voyer, S. D. (2014). Gender differences in scholastic achievement: A meta-analysis. *Psychological Bulletin*, 140(4), 1174–1204.