

## **Correlates of Workload and Academic Stress among Fresh Undergraduate Students at Abubakar Tafawa Balewa University, Bauchi – Nigeria**

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### **Abstract**

*The study seek to find out the relationship between Workload and Academic Stress among Fresh Undergraduate Students at Abubakar Tafawa Balewa University, Bauchi – Nigeria To determine the relationship between academic stress and study hours by undergraduate students in each semester were among the main objectives of the study. Correlational design was used. The population of the study constituted 193 (115 Males and 78 Females) fresh undergraduate students of Faculty of Technology Education. Proportionate Stratified Random sampling techniques was employed in selecting a sample of 108 students as sample participants in this study based on sample size table by Research Advisors. Three self-designed instruments titled Study Hours and Academic Stress Questionnaire (SHASQA), Assignment and Academic Stress Questionnaire (AASQ) and Workload and Academic Stress Questionnaire (WASQ) were used respectively for data collection in this study. The questionnaires have coefficient reliability index of 0.85, 0.83 and 0.93 respectively using Chronbach alpha. Hypotheses were formulated and tested at a 0.05 level of significance. The data were analysed using mean, standard deviation and Pearson Product Moment Correlation Coefficient (PPMCC). Findings from the study showed that there is a significant relationship between Workload and Academic Stress among Fresh Undergraduate Students. However recommendations offered were Counsellors should guide the fresh students towards inculcating in them strategies for time management that will enable them utilize their time effectively.*

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**Key words:** *Academic stress, Workload, Study hours, Assignment.*

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### **Introduction**

The University education is an optional final stage of a formal learning that occurs after secondary or diploma or its equivalence. Students who progress beyond secondary education moved into universities as undergraduate students. This type of education is associated with academic freedom. It also encompasses insight to conceive models, theories, practical and scales among others in providing appropriate solutions to problems or objectives. It investigates theory with the world of work. Its main function is diversity in leaning opportunity and stimulates innovation for the benefit of the learners and the society. It takes a minimum duration of four or five years. At the completion of the programme, result awarding academic degree is given to such person. Many of those students who gained admission to study in the universities are joyful excited. At the start of the classes, they will discover they are challenged with rigorous academic activities to be done in good quality and submitted within a specified time frame. To meet up with this type of demand it could likely lead to developing stress in the students.

Stress is defined by Baba, Adam and Is-haq (2014) as a reaction to state of affairs which a person perceives as intimidating. It is a means in which the body tells you that something is going on that requires attention. Therefore, high level of stress had the ability to prevent students from being successful in their respective educational goals. Adam and Aminu (2017) posited that trying to obtain education might turn out to be stressfully bustling for the students. It requires the students negotiating the work of writing, reading, interpreting, verbal communication and performing calculation as well as faces some infuriating hurdles. This can likely create a situation referred to as academic stress.

Academic stress is performance related anxiety. According to Lal (2014) academic stress is a mental distress with respect to anticipated frustration associated with academic failure or even unawareness to the possibility of such failures. In support of this definition Yumba (2008) believed it to be negative emotional cognitive behavioural and physiological process that occurs as a person try to adjust or deals with stressors, such stressors are academic demand that the students faced, like school examination, answering questions in the classrooms, showing progress in school subjects, understanding what the teacher is teaching, competing with classmates, fulfilling teachers and parents academic expectations (Lal, 2014). These demands or tasks may exceed students' abilities and resources as a result it could put them under stress.

The workload on the undergraduate students seems to be too cumbersome. Workload refers to a number of different yet related activities students engaged for their academic, social and physical progress in school. However, it is clear that most of these works are specified at a minimum of 2hours and a maximum of 3hours per credit point. Lal (2014) described workload as the perceived relationship between the amount of mental processing and capability or resources and amount required by the task. Macqarie University (2015) outlined students workload to include class attendance, amount of required reading group activities and assessment tasks or combination of all these. According to Rahim, Saat, Siti-Aisha, Aziz, Zakaria, Kaar, Kamaraddin and Suhaima (2016) they believed that workload should include a combination of three activities that is class attendance (both face to face and online), learning activities including reading or research and undertaking assessment tasks.

Workload can be classified into quantitative (the amount of work to be done) and qualitative (the difficulty of the work). Workload could also be too high or too low. If it is too high it could lead to academic stress and if it is too low it could be boredom, loss of situation, awareness and reduces alertness. Also workload can increase performance.

Performance refers to one's level of ability in a particular area. According to Peter, Ofafa, Otor and Ngonzo (2014) performance on standardized test receives the greatest attention in discussion of students' performance. Therefore, students' academic performance is measured through examination, attendance and continuous assessment. This give rooms to identify any student that is likely to lead to academic failure. Two kinds of examination are written by the students annually to evaluate their performance. One of such examination is taking at the end of the first semester and the second one at the end of the second semester.

### **Statement of the Problem**

The fresh under graduate students have just left secondary and were admitted into the university without experience of how it operates. The workload given to students separate universities and secondary schools in terms of rigorous academics activities. Universities require students to take too many courses at once to graduate on time. They are expected to do quality work that gives them good grades in a very short time. It is likely that an overly

burdensome workload may be harmful to a university student by inducing stress in him/her. Chronicle (2014) reported some students are diagnosed with clinical depression due to workload. The objective of giving a lot of assignment is to force the students to learn, thus every student learns in different stages. Students who have assignment due for submission everyday may grow anxiety that is likely to lead them to stress. Any student who want to excel academically and avoid carrying over courses most spend most of his/her time reading thereby, loosing his/her sleep which may at long run lead to stress. The female students appeared to be more stressful than their male counterpart; this according to Chronicle (2014) may be due to secretion of more hormones that makes them prone to emotional issues. To this end the thrust of this study is to correlate workload and academic stress among fresh undergraduate students in the Faculty of Technology Education at Abubakar Tafawa Balewa University, Bauchi.

### **Purpose of the Study**

The following objectives were postulated to give a guide to this study:

- 1 - To determine the relationship between academic stress and study hour by undergraduate students in each semester.
- 2 - To find out the relationship between academic stress and assignment taken by undergraduate students each semester.
- 3 - To assess male academic stress and workload as compared to female academic stress and workload of undergraduate students.

### **Research Questions**

3 research questions were put forward to guide this study as follows:

- 1 - What is the relationship between academic stress and study hours by undergraduate students each semester?
- 2 - What is the relationship between academic stress and the assignment taken by undergraduate students each semester?
- 3 - What is male academic stress and workload as correlate female undergraduate students academic stress and workload?

### **Hypotheses**

3 hypotheses were postulated to guide this study and was tested at  $\alpha=0.05$  level of significance.

- 1 - There is no significant relationship between academic stress and study hours by undergraduate students each semester.
- 2 - There is no significant relationship between academic stress and assignment taken by undergraduate students.
- 3 - Male academic stress and workload has no significant relationship with female undergraduate student academic stress and workload.

### **Research Design**

This study employed the correlational research design to find out whether there is connection between academic stress and workload among fresh undergraduate students in order to determine the strength and direction of the relationship. Correlation looks for variables that seem to interact with each other, so that when you see one changing then it will give you the idea of how the other will change (Kowakzyk, 2015).

### **Population and Sample Size**

The population of the study consisted of fresh undergraduate students from the

Faculty of Technology Education at Abubakar Tafawa Balewa University (ATBU), Bauchi from 100 levels. They were chosen purposely because of their first experience in the university after graduating from secondary schools. These students experienced a lot of changes in their transition, which touches their lives as they progress academically, and experienced enormous increase in their academic work compared to that of their former schools (secondary schools). They therefore, required a guide that will take them through a successful completion of the programme. It consisted of two departments (Department of Science Education and Department of Vocational and Technical Education) and it includes both males and females.

It became necessary for the researcher to get a representative sample using table for determining sample size from the given population (Research Advisor, 2006). Therefore the sample size of 108 was drawn from the population. The sample was proportionately selected using proportionate stratified random sampling techniques. This technique was employed in order to get a uniform sampling fraction from each department of the faculty of Technology Education of the University. To this end the proportion for the department were calculated in order to determine the sample size for each department.

**Table 1: student population (N) and sample size (S) of the faculty of Technology Education**

S/No	Departments	N	S
1.	Vocational and Technical Education	36	20
2.	Science Education	157	88
	Total	193	108

Field work 2016

### **Instrumentation**

The researchers developed three instruments for data collection titled Study Hours and Academic Stress Questionnaire (SHASQ); Assignment and Academic Stress Questionnaire (AASQ) and Workload and Academic Stress Questionnaire (WASQ). The 3 questionnaires were derived from literature reviews, personal observation and interactions with the students.

The Study Hour Academic Stress Questionnaire (SHASQ) was a twenty (12) items scale, which was modified on 4 point Likert scale of strongly agree (SA); agree (A); disagree (D); strongly disagree (SD). Two experts in the Unit of Guidance and Counselling and Measurement and Evaluation at Abubakar Tafawa Balawa, University, Bauchi, validated the instrument. It yielded reliability co-efficient of 0.85 using Cronbach alpha method.

The Assignment and Academic Stress Questionnaire (AASQ) was a twelve (12) items scale, which was modified on 4 point Likert scale of strongly agree (SA); agree (A); disagree (D); strongly disagree (SD). Two experts in the Unit of Guidance and Counselling and Measurement and Evaluation at Abubakar Tafawa Balawa, University, Bauchi, validated the instrument. A pilot study had been done and Cronbach alpha value was 0.83 indicating a high internal consistency.

The Workload and Academic Stress Questionnaire (WASQ) was an eight (8) items scale, which was modified on 4 point Likert scale of strongly agree (SA); agree (A); disagree (D); strongly disagree (SD). Two experts in the Unit of Guidance and Counselling and Measurement and Evaluation at Abubakar Tafawa Balawa, University, Bauchi, validated the instrument. It yielded reliability co-efficient of 0.93 using Cronbach alpha method.

### Procedure for Data Collection

The three validated instruments (SHASQ; AASQ and WASQ) were distributed to 108 respondents with the help of two research assistance who were trained in the administration and retrieval of the questionnaires. Out of which 103 (95.4%) of the questionnaires were returned while 5 (4.6%) were not returned. The returned questionnaires were marked and scored in order to determine the relationship between workload and academic stress.

### Method of Data Analysis

The Pearson Moment Correlation Coefficient (PPMCC) was employed to test the three hypotheses. The justification for using the PPMCC is that the variables are in the interval scale of measurement. It is also useful for determining the strength and direction of relationship between two variables, either as negative or positive. Again correlation coefficient ( $r$ ) takes range between -1.00 to +1.00 that describes the relationship between the two variables.

### Results

The hypotheses were tested at 0.05 level of significance. The results were presented as

**Ho<sub>1</sub>:** There is no significant relationship between academic stress and study hours by undergraduate students each semester.

The hypothesis was tested using PPMCC and the result was presented in table 3. The descriptive information result for the hypothesis was analysed using PPMCC and the mean scores were one: (N=103(95.4%), M=63.33, SD=14.01) and (N=103 (95.4%) M=16.95, SD=14.50).

**Table 2: PPMCC analysis of relationship between academic stress and study hours by Undergraduate students**

Variables		Academic stress	Courses registered
Academic stress	Pearson correlation	1	.979**
	Sig (2-tailed)		.000
	N	103	103
Courses registered	Pearson correlation	.979**	1
	Sig (2-tailed)	.000	
	N	103	103

\*\*correlation is significant at 0.05 levels (2-tailed)

There was positive relationship between the two variables ( $r=.979^{**}$ ,  $n=103$ ,  $p < 0,05$ ) with high level of academic stress associated with high level of study hours. This indicates that there was a high positive academic stress long hour's study period among fresh undergraduate students of faculty of education. It means long study hour's influences high level of academic stress among students.

**Ho<sub>2</sub>:** There is no significant relationship between academic stress and assignment taken by undergraduate students each semester.

The hypothesis was tested using PPMCC and the result was presented in table 4. The descriptive information result for the hypothesis was analysed using PPMCC and the mean scores were one: (N=103(95.4%), M=60.66, SD=4.92) and (N=103 (95.4%) M=23.91, SD=11.21).

**Table 3: PPMCC analysis of relationship between self-esteem and grade satisfaction**

Variables		Academic stress	Assignment
Academic stress	Pearson correlation	1	.894**
	Sig (2-tailed)		.000
	N	103	103
Assignment	Pearson correlation	.894**	1
	Sig (2-tailed)	.000	
	N	103	103

\*\*correlation is significant at 0.05 levels (2-tailed)

There was positives relationship between the two variables ( $r=.894^{**}$ ,  $n=108$ ,  $p < 0,05$ ) with high level of academic stress associated with taken many assignments. This indicates that there was a high positive academic stress and among fresh undergraduate students of education when given many assignments. It means the number of assignments given influences high level of academic stress among students

**Ho<sub>3</sub>:** Male academic stress and workload has no significant relationship with female undergraduate student's academic stress and workload.

The hypothesis was tested using PPMCC and the result was presented in table 5. The descriptive information result for the hypothesis was analysed using PPMCC and the mean scores was one: ( $N=103(95.4\%)$ ,  $M=63.66$ ,  $SD=4.92$ ) and ( $N=103 (95.4\%)$   $M=23.91$ ,  $SD=7.10$ ).

**Table 4: PPMCC analysis of relationship between male and female undergraduate student's academic stress and workload**

Variables		Male academic stress and workload	Female academic stress and workload
Male academic stress and workload	Pearson correlation	1	.803**
	Sig (2-tailed)		.000
	N	103	103
Female academic stress and workload	Pearson correlation	.803**	1
	Sig (2-tailed)	.000	
	N	103	103

\*\*correlation is significant at 0.05 levels (2-tailed)

There was positives relationship between the two variables ( $r=.803^{**}$ ,  $n=103$ ,  $p < 0,05$ ) with high level of male academic stress and workload associated with high level of female academic stress and workload. This indicates that there was a high positive male academic stress and workload compared with female academic stress and workload of fresh undergraduate students of education. It means the workload influences high level of academic stress among female than male fresh undergraduates.

## Discussion

From the analysis of the data collected and hypotheses tested, it was discovered that in hypothesis one indicated high positive relationship between hours of study associated with academic stress among fresh undergraduate students. They therefore, discovered the whole of

their time is fully engaged with academic activities that leave them no time to get a full rest. In a similar vein, Batanneh (2013) reported that the demand from academic pressure associated with limited social and personal time can lead students to possess a unique type of stressor. Britz and Pappas (2015), revealed a high degree and frequency of stress exists among his respondents with over 50% of the students reporting high level of stress due to workload and time management.

The result in hypothesis two showed a significant high positive academic stress associated with assignment taken among fresh under graduate students in the faculty of education. The assignment usually comes from different lecturers within a week with a short intervals and notice of date of submission. It is also expected to be of good quality. The finding is similar to the finding of Batanneh (2013) who indicated a low effect of late submission of assignment causes stress among his respondents. In the same vein, Bedawy and Gabriel (2016), discovered that stress level may escalate to significant proportion in some students with symptom of anxiety especially, during test, examination or submission of homework.

The result in hypothesis three showed a significant relationship between high stress and workload among females associated with low stress and workload among male fresh undergraduate students. Batanneh (2013) revealed a high level of chronic stress in the feminine gender compared to the masculine gender. Chronicle reported women are 30% more likely to suffer from stress than men. This is due to secretion of more hormones making them more prone to emotional issues than men (Chronic, 2014).

### **Conclusion**

The study correlated workload and academic stress among fresh under graduate students. Three questionnaires were used to examine the three independent variables. Findings indicated a high relationship between workload and academic stress among fresh undergraduate students.

### **Recommendations**

Based on the findings of this study, the following recommendations are put forward:

1. Counsellors should guide the fresh students towards inculcating in them strategies for time management that will enable them utilize their time effectively.
2. Lectures should schedule their tests and assignments at intervals to avoid giving those tests and assignments at the same time that will become cumbersome and stressful to the students.
3. Counsellors should train fresh students on drawing and use of personal time table that will assist the students to accommodate learning and comprehending all what they learned in the semester through adopting good reading skills.

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