Factors Affecting the Academic Performance of the Students of Bowen University, Nigeria

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Authors' contributions

This work was carried out in collaboration among all authors. Author IO designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors TA and TO managed the analyses of the study. Author TA managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Aim: Students' academic performance is an important criterion that is considered for career opportunity in academia and industry as such the onus is on students to perform well academically in order to stand a chance of holding their own in a competitive and saturated labour market. The fact however is that a number of factors within and outside the classroom combine to determine how well students perform academically. Thus, the aim of this study was to determine the impact of factors such as gender, study habits, faculty of study, extracurricular activities, boyfriend/girlfriend relationship, social media usage and type of secondary school attended on students' academic performance in Bowen University.
Study Design: A survey research design was used which employed a questionnaire capable of gathering large amount of quantitative and qualitative data.
Place and Duration of Study: Bowen University, Iwo, Nigeria between March 2017 and May 2017.
Methodology: A self-designed survey questionnaire was administered to a sample of 380 students (144 males, 236 females) drawn from a population of 3,819 students using multi-stage

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sampling technique. Data collected during the survey were processed and analyzed using various statistical techniques including frequencies, percentages, independent samples t-test, analysis of variance test and Chi-Square test for independence.

Results: Survey results indicated that gender, involvement in extracurricular activities, involvement in boyfriend/girlfriend relationship, study habit and social media usage significantly impact upon student's academic performance while the type of secondary attended and the faculty of study were found not to significantly affect academic performance of the students.

Conclusion: The survey results demonstrated that some of the considered factors significantly affect academic performance of students while some do not. As such, it is important for students to develop good study habits that will enable them spend more time studying while also cutting down on the number of hours spent daily on social media. In the same vein, students should be more involved in extracurricular activities that promote fitness, total wellness and team work. In addition, relationships should be well managed to ensure that they do not negatively impact on students' academic performance.

1. INTRODUCTION

1.1 Background

It has been long established that education whether formal or informal plays an important role in the life of individuals. Thus, for formal education, institutions of learning including universities are set up to impact and share knowledge that will better the lives of students and position them for opportunities in research and industry.

According to Fadokun [1] schools are established with the aim of impacting knowledge and worldwide institutions have come to be recognized as centres of knowledge accumulation and knowledge transfer with students being the most essential asset for any educational institute. This implies that Students are the most important cog in the machine of the university. It is therefore safe to say that they are the main component of the university structure. As such, universities attempt to empower students through a rigorous and thoroughly outlined curriculum by emphasizing and rewarding good academic performance.

Alos et al. [2] state that the performance of students is considered an important player in the production of best quality graduates who will become great leaders and provide adequate manpower to enhance the country's economic and social development and that academic achievement is one of the major criteria considered by employers in hiring workers, especially fresh graduates. Thus, students have to put the greatest effort in their study to obtain good grades and to prepare themselves for future opportunities in their chosen career as well as fulfill the employer's demand(s).

Academic performance according to the Cambridge University Reporter is frequently defined in terms of examination performance. In this research, the academic performance is characterized by the average of overall grades obtained across the semesters the student spends in the university which culminate in a Cumulative Grade Point Average (CGPA). The CGPA score would take into account students' performance in tests and examinations over the years they have been in school. This CGPA score implies that the higher the score, the better the student has performed academically. As such the CGPA will be a good measure of a students' academic performance. Thus this study follows the studies conducted by Darling et al. [3] and Galiher [4] in employing CGPA to measure students' academic performance.

The education sector in Nigeria has been saddled with the task of delivering high quality education that produces well-educated, skilled, and well-mannered students according to the needs and requirements of the dynamically growing market. However, according to Akomolafe and Olorunfemi-Olabisi [5] stakeholders in the Nigerian educational system including parents, guardians, lecturers, family members, counselors, employers and many others, have great concern about the academic standard available and the performance of students. Olatunji et al. [6] opined that the reason for such concern can probably be linked to educational success being highly instrumental to

the development of a nation. That is educational success plays a pivotal role in nation building.

It is therefore pertinent to consider factors that contribute to educational success. To this end, this study set out to investigate the impact of gender, study habits, faculty difference, involvement in extracurricular activities, involvement in boyfriend/girlfriend relationship, use of social media and type of secondary school (public or private) attended on the academic performance of students in Bowen University, Nigeria.

1.2 Problem Statement

Academic achievement is one of the major criteria considered by employers in hiring workers, especially fresh graduates [2]. Employers today have become increasingly concerned about the quality of university graduates being produced by Nigerian universities due to the fact that a number of universities are experiencing high rate of student failure and poor academic performance.

The issue of poor academic performance of students in Nigeria has therefore become a source of concern to most parties involved in the delivery of quality education within the country. This unhealthy situation has led to the widely acclaimed fallen standard of education in Nigeria (Akiri and Ugborugbo [7]; Bamidele and Bamidele [8]).

It is thus imperative to examine the factors that affect the performance of students in order to understand the impact of such factors and identify areas that need immediate and necessary action(s) in a bid to producing graduates capable of holding their own in their chosen career path as well as meeting the increasing demands of the employers.

1.3 Literature Survey

Many researchers have discussed and examined different factors that affect the academic performance of students and they generally agree that there are two categories of factors that affect the students' academic performance which are internal and external classroom factors. Internal classroom factors include students competence in class, schedules, class size, environment of the class, complexity of the course material, teachers role in the class, examinations systems etc. External classroom factors include extracurricular activities, social and demographic factors, socio-economic factor, family background among others. However, in this study the specific factors considered are gender, study habits, difference in faculties, involvement in extracurricular activities, and involvement in boyfriend/girlfriend relationship, social media usage and type of secondary school attended. Literature review is carried out in line with the objectives of the study.

Studies by Borde [9] and Meece and Jones [10] revealed that gender did not play a role in academic performance. Hedges and Newell [11] found that male students outperformed female students in science, but in reading and writing female students did much better. However, educational statistics have indicated that female students are outperforming their male counterparts at all levels of the education system and attaining higher qualifications. Woodfield and Earl-Novell [12] after analyzing more than a million graduating students, observed that female students did better than male students. They attributed this partly to female students being more academically responsible and thus less likely to be absent from lectures.

In studies on the impact of study habits on academic performance, Akpan and Emeya [13], Ebele and Olofu [14] found a significant relationship between study habit and academic achievement or performance.

Silliker and Quirk [15], Gerber [16], Marsh and Kleitman [17], Guest and Schneider [18] all found that participation in extracurricular activities enhances students' academic performance.

In studies relating to social media usage, Owusu-Acheaw and Larson [19] found a direct relationship between the use of social media and academic performance. Hasnain, et al. [20] found that social media has an inverse relationship with academic performance. Tamayo and dela Cruz [21] also found a relationship between social media usage and academic performance. Celestine and Nonyelum [22] found that the excessive time spent on social media can negatively affect student academic performance.

1.4 Scope of the Study

The scope of the study is limited to Bowen University, Iwo, Nigeria.

1.5 Justification of the Study

This research work contributes to literature by simultaneously considering a number of factors which are responsible for students' behaviour towards study along with identifying those factors which help a student make progress in his or her studies. The use of statistical tools to analyze the factors affecting students' performance is especially important as it provides valuable information to better understand the impact of these factors and also add more statistical data to previous studies which can be used to improve the content, quality, format and teaching – learning process in order to aid student performance.

2. MATERIALS AND METHODS

2.1 Conceptual Framework

The following conceptual framework shows the selected factors that interplay to influence academic performance of students (Fig. 1).

The conceptual framework assumed that various internal and external classroom factors can affect the academic performance of students of Bowen University within the available resource. Poor study habits, excessive social media usage, and over investment in boyfriend/girlfriend relationship may result in poor academic performance. Conversely, good study habits, balanced social media usage, and well managed boyfriend/girlfriend relationship may result in good academic performance. However, poor academic performance can be avoided if students have a positive attitude towards studies and there is availability of the needed resources.

In the same vein, lecturers' factors like adequate qualification, research background and years of teaching experience which may positively affect the academic performance of students may be counterproductive if the lecturers have negative attitudes. Therefore, all the independent variables can or may affect the academic performance of students positively or negatively based on their form and the effect of the intervening variables upon them.

2.2 Study Design

A survey research design was used. It employed the use of a survey questionnaire capable of gathering large amount of quantitative and qualitative data.

2.2.1 Study population

The study population comprised of all registered students of Bowen University, Iwo. The University has a total student population of about 5,000 students. However as at the time of this study, there were 3,819 registered students on which the survey was conducted. This comprised 252 students in the Faculty of Agriculture, 453 students in the Faculty of Humanities, 605 students in College of Health Sciences, 283 students in the Faculty of Law, 948 students in the Faculty of Science and Science Education and 1,278 students in the Faculty of Social and Management Sciences. The University is a diverse community comprising students from various ethnic backgrounds and age groups.

2.2.2 Sampling

The sample frame for the study was composed of all registered Bowen University students for
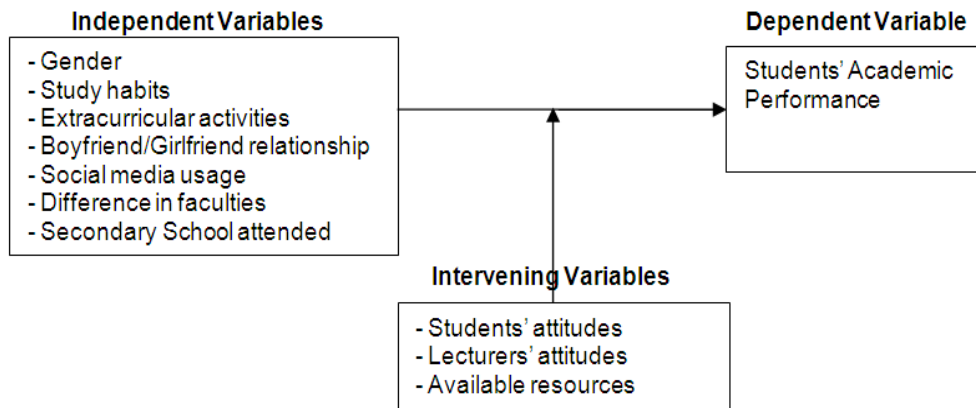

Fig. 1. Conceptual framework for factors affecting the academic performance of students

the first semester of the 2016/2017 academic session, totaling 3,819. The researchers obtained a breakdown of registered students by faculty from the University's Directorate of Information and Communication Technology. The researchers employed multi-stage sampling technique. The first stage involved dividing the students into six clusters by faculties since the faculties occur naturally. The second stage involved estimating the minimum number of respondents required to have a fair representation for each cluster or student sub-group using proportional allocation. Finally, the selection of respondents was conducted via simple random sampling for each student cluster.

2.2.3 Sample size

The minimum number of respondents required to produce a statistically significant result was calculated according to the formula by Dillman [23], equation (1) below and thereafter, the actual sample size obtained from the data collected was computed.

$$n = \frac{(N_p)(p)(1-p)}{(N_p-1)\left(B/C\right)^2+(p)(1-p)} \quad (1)$$

Where:

n = required sample size
N_p = population size
p = expected proportion
B = acceptable level of sampling error
$C = Z$ statistic associated with confidence interval

In this study, the following were used:

$p = 0.5$
$B = 5\%\ (0.05)$
C (Z statistic associated with 95% confidence interval) = 1.96

N_p =3819 Students (Faculty of Agriculture = 252, Faculty of Humanities = 453, College of Health Sciences = 605, Faculty of Law = 283, Faculty of

Science and Science Education = 948, Faculty of Social and Management Sciences = 1278)

Therefore, substituting into the equation (1) above, we have:

$$n = \frac{(3819)(0.5)(1 - 0.5)}{(3819 - 1)\left(0.05/1.96\right)^2 + (0.5)(1 - 0.5)}$$

$n = 349.12$
$n \approx 349$ respondents

A minimum of 349 respondents were required to achieve 95% confidence level with 5% sampling error. To achieve a fair representation of students, simple random sampling was used to calculate the minimum sample size for each faculty. This was performed by dividing the students into 6 clusters by faculties- Agriculture, Humanities, College of Health Sciences (CHS), Law, Science and Science Education (SSE) and Social and Management Sciences (SMS) and then taking a simple random sample (SRS) from each cluster giving the result in Table 1.

2.3 Research Instrument

A carefully structured self-prepared questionnaire (Appendix 1) was administered to respondents in the study population to collect the required data. The questionnaire consisted of four parts: The first part gave a brief explanation of the purpose of the study, the importance of the students' participation and contribution to the study and also included a confidentiality statement. The second part contained questions relating to demographic information and educational background of the respondent. The third part contained twenty statements relating to the internal classroom factors where respondents were asked to rate their response to the statements using a 5-point Likert scale (strongly agree, agree, undecided, disagree and strongly disagree). The fourth part contained questions relating to external classroom factors.

Table 1. Breakdown of student sub-group and corresponding sample size

Faculty	Population size	% of total population	SRS (n)
Agriculture	252	6.60%	23
Humanities	453	11.86%	41
CHS	605	15.84%	55
Law	283	7.41%	26
SSE	948	24.82%	87
SMS	1278	33.46%	117
Total	**3819**		**349**

2.4 Pilot Study

A pilot study was conducted among 10 students purposively selected by the researchers at Bowen University. The pilot survey provided an opportunity to note the time taken to complete the survey, test the reliability, format, accuracy and validity of the questionnaire, assess student's understanding of the questions, evaluate the effectiveness of the survey tool and identify necessary revisions. The researchers administered the questionnaire personally so as to experience firsthand any reaction from the students participating in the pilot study and to receive feedback on the questionnaire. During this study, demographic data, internal and external classroom factors were identified as independent variables while students' academic performance (measured in terms of the Cumulative Grade Point Average) was identified as the dependent variable.

2.4.1 Improvement

A number of improvements were identified as regards layout. After careful review and evaluation of the pilot study results with the necessary improvements needed, the questionnaire was determined acceptable.

2.5 Access and Recruitment

The researchers visited various faculty lecture halls and student hostels of residence and also employed the help of class representatives and departmental presidents in order to get access to and recruit the required respondents for the survey.

2.6 Response Rate

400 copies of the survey questionnaire were administered and 389 copies were retrieved. This represented a response rate of 97.3%. The analysis however involved 380 completely and properly filled copies of the questionnaire.

2.7 Data Management and Analysis

The data collected were processed, managed and analyzed using Statistical Package for the Social Sciences (SPSS) Version 20.

2.8 Statistical Techniques

The statistical techniques employed in this study are independent sample t-test, analysis of variance test and Chi-Square test for independence.

3. RESULTS

3.1 Analysis of Personal Characteristics of the Study Population

Table 2 below summarizes the personal characteristics of the study population. It shows that a greater proportion of the respondents, (62.1%) were female while males accounted for the remaining (37.9%) reflecting a fair gender representation. A greater proportion of the respondents (58.9%) were between 16 and 20 years while (31.1%) were between ages 21-25 while (3.9%) were below 16 years while (6.1%) were ages 25 and above. A greater proportion of the respondents (44.5%) were in 400-500 level, while spillovers had the smallest representation (3.7%). (9.5%) of the respondents were in 100 level, (15.5%) were in 200 level and (28.8%) were in 300 level. A greater proportion of the respondents (31.8%) were from the Faculty of Social and Management Sciences, (27.4%) were from the Faculty of Science and Science Education, (15.0%) were from the College of Health Sciences, (11.3%) were from the Faculty of Humanities, (7.6%) were from the Faculty of Agriculture while the remaining (6.8%) were from the Faculty of Law. A greater proportion of the respondents (47.9%) were on Second Class Upper, (25.5%) were on Second Class Lower, (16.6%) were on First class while the remaining (10.0%) were on a Third Class. A greater proportion of the respondents (88.7%) attended a private secondary school while the remaining (11.3%) attended public secondary school.

3.2 Analysis of Research Objectives

The research objectives were analyzed using independent sample t-test, analysis of variance test and Chi-Square test for independence.

4. DISCUSSION

The female students were found to perform significantly better academically on the average than male students. This is agreement with the findings of Woodfield and Earl-Novell [12] who observed that female students did better than male students. They attributed this partly to female students being more academically responsible and thus less likely to be absent from lectures.

Table 2. Personal information of the respondents

Variables	Frequency	Percentage
Age (In Years)		
< 16	15	3.9
16-20	224	58.9
21-25	118	31.1
> 25	23	6.1
Gender		
Male	144	37.9
female	236	62.1
Level		
100	36	9.5
200	59	15.5
300	102	26.8
400-500	169	44.5
Spill Over	14	3.7
Faculty		
Science	104	27.4
Social & Mgt Science	121	31.8
Agriculture	29	7.6
Humanities	43	11.3
Health Sciences	57	15.0
Law	26	6.8
Class of degree		
First Class	63	16.6
Second Class Upper	182	47.9
Second Class Lower	97	25.5
Third Class	38	10.0
Secondary school attended		
Private	337	88.7
Public	43	11.3

Table 3. Independent samples t-test

Variable	Mean$\pm$SD	t-value	Degrees of freedom	P-value
Gender		-4.475	378	< .05
Male	3.45$\pm$0.84			
Female	3.81$\pm$0.74			
Extracurricular activities		4.891	378	< .05
Involved	3.98$\pm$0.69			
Not Involved	3.55$\pm$0.81			
Boyfriend/girlfriend relationship		-1.497	378	.14
Involved	3.62$\pm$0.90			
Not Involved	3.74$\pm$0.63			
Secondary school		-1.376	378	.17
Public	3.52$\pm$0.96			
Private	3.69$\pm$0.77			

A significant relationship was found between participation in extracurricular activities and students' academic performance. Students who are involved in extracurricular activities were found to perform significantly better academically on the average than students who are not involved in extracurricular activities. This is in line with the findings of [15] who found that participation in extracurricular activities enhances students' academic performance and [16,17] and [18] who found that participation in extracurricular activities promoted greater academic achievement.

Table 4. Analysis of variance test

Variable	F-value	Degrees of freedom	P-value
Study habits			
Library Visitation	15.167	3, 376	< .05
Daily Study Hours	6.193	4, 375	< .05
Extracurricular activities			
Membership of groups	12.821	4, 375	< .05
Sports Participation	.524	4, 375	.718
Social media usage	8.603	4, 375	< .05
Faculty of study	2.268	5, 374	.047

Table 5. Chi-Square test of independence

Variable	Chi-square value	Degrees of freedom	P-value
Social Media Usage	19.648	3	< .05
Lecturer's Approach	0.577	3	.90
Study Habits	17.438	3	< .05
Extracurricular Activities	17.759	3	< .05
Boyfriend/girlfriend relationship	20.115	3	< .05

A significant relationship was found between involvement in relationship and students' academic performance. As such, involvement in relationship has an effect on academic performance. Though not statistically significant, students who are not involved in boyfriend/girlfriend relationship were found to perform better academically on the average than those involved in boyfriend/girlfriend relationship. This might be due to the time and energy invested into such relationships by those involved.

No significant difference was found between the academic performance of students who attended public secondary schools and students who attended private secondary schools. As such, the secondary school attended by students does not necessarily have an effect on their academic performance.

There was no significant relationship found between lecturer's approach and students' academic performance. This is probably due to the fact that the university has a great blend of lecturers.

A significant relationship was found between study habit and students' academic performance. This corroborates the findings of Akpan and Emeya [13] and Ebele and Olofu [14]. The use of the library was found to significantly affect the academic performance of students. In the same vein the number of daily study hours was found to significantly affect the academic performance of students. The more hours spent studying daily,

the better the academic performance of the students.

A significant relationship was found between social media usage and students' academic performance. This corroborates the findings of many researchers [19,20,21]. The number of hours spent on social media was found to significantly affect the academic performance of students. Students who spend less than 6 hours daily on social media tend to perform better than students who spend at least 6 hours on social media daily. This is in agreement with Celestine and Nonyelu [22] who found that the more the hours spent on social media, the lower the academic performance of the students.

5. CONCLUSION

5.1 Summary of Findings

This research work examined some internal and external classroom factors that affect the academic performance of students.

The results from the independent samples t-test revealed that there was a significant difference in the academic performance of male and female students, students who are involved in extracurricular activities and students who are not extracurricular activities; it also revealed that there was no significant difference between the academic performance of students who are involved in a boyfriend/girlfriend relationship and students that are not involved in a boyfriend/

girlfriend relationship and students who attended public secondary schools and students who attended private secondary schools.

The results from the analysis of variance revealed that there was a significant difference between the academic performance of students based on library usage; there was a significant difference between the academic performance of students based on social media usage; there was a significant difference between the academic performance of students based on involvement in extracurricular activities; there was no significant difference between the academic performance of students based on the number of hours spent weekly on sports.

The results from the Chi-Square test of independence revealed that there was a significant relationship between students' academic performance and social media usage, study habit, boyfriend/girlfriend relationship status and participation in extracurricular activities. It also revealed that there was no significant relationship between lecturer's approach and students' academic performance.

In conclusion, gender, involvement in extracurricular activities, study habits, social media usage and involvement in boyfriend/girlfriend relationship impact upon student's academic performance.

6. RECOMMENDATIONS

Based on the findings on this research work, students are encouraged to develop good study habits that will enable them spend more time studying. Students should cut down on the number of hours spent daily on social media and should instead be more involved in extracurricular activities that promote fitness, total wellness and team work. In addition, relationships should be well managed to ensure that they do not negatively impact on students' academic performance.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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APPENDIX

APPENDIX 1: SURVEY QUESTIONNAIRE

QUESTIONNAIRE

Dear Respondent,

We are carrying out a research project on "FACTORS AFFECTING THE ACADEMIC PERFOMANCE OF STUDENTS OF BOWEN UNIVERSITY".

Your participation in this research is needful but voluntary. Your responses are held in the strictest confidence. Thank you for your time.

SECTION A: Personal Information

1. Sex: Male ☐   Female ☐

2. Age: Below 16 ☐   16 – 20 ☐   21 – 25 ☐   Above 25 ☐

3. Level: 100L ☐   200L ☐   300L ☐   400 – 500L ☐
   Spillover ☐

4. Faculty: ……………………………………

5. Current CGPA: ……………

6. Which secondary school did you attend? Public ☐   Private ☐

SECTION B

The questions in this section relate to the internal classroom factors affecting student's performance. Indicate how much you agree or disagree with the following statements by putting a tick in the appropriate box.

S/N	Statements	SA	A	NS	D	SD
7	I feel sleepy in class					
8	I feel hungry in class					
9	I find it difficult to see in class					
10	I find it difficult to hear in class					
11	I study only when there is a test					
12	I study only when I like					
13	I come late for lectures					
14	I am sometimes absent from lectures					
15	I copy the assignment(s) of friends					
16	My lecturers discuss many topics in a short period					
17	My lecturers use lecture method only					
18	My lecturers are sometimes absent from class					
19	My lecturers are sometimes late to class					
20	My lecturers can be strict with marks					

KEYS: SA: Strongly Agree; A: Agree; NS: Not Sure D: Disagree; SD: Strongly Disagree

SECTION C

The questions in this section relate to external classroom factors affecting student's performance. Kindly tick as appropriate.

21. How often do you visit the library?
    Daily ☐   Occasionally ☐   Rarely ☐   Never ☐

22. Do you borrow books from the library?
    Yes ☐   No ☐

23. How much time do you spend studying in a day?
    0 – 5hrs ☐   6 – 10 hrs ☐   11 – 15 hrs ☐   16 – 20 hrs ☐   21 hrs & above ☐

24. How much time do you spend on sports in a week?
    0 – 5 hrs ☐   6 – 10 hrs ☐   11 – 15 hrs ☐   16 – 20 hrs ☐   21 hrs & above ☐

25. How active are you on social media?
    Very active ☐   Active ☐   Averagely Active ☐   Not Active ☐

26. Which of the following social media platforms are you registered on?
    Please tick all that apply.
    Facebook ☐   Instagram ☐   Snapchat ☐   Whatsapp ☐
    Twitter ☐   Imo ☐   Skype ☐   Others, Please State: …………………

27. How many hours do you spend on social media in a day?
    0 – 5 hrs ☐   6 – 10 hrs ☐   11 – 15 hrs ☐   16 – 20 hrs ☐   21 hrs& above ☐

28. Are you in a relationship? Yes ☐   No ☐   If No go to Question29
    If Yes: Within Campus ☐   Outside Campus ☐

29. How Much time do you invest in your relationship daily?
    0 – 5hrs ☐   6 – 10hrs ☐   11 – 15hrs ☐   16 – 20hrs ☐   21hrs&above ☐

30. How many BBSF units and/or other groups do you belong to?
    None ☐   One ☐   Two ☐   Three ☐   Four and above ☐

31. Are you an active member of your departmental association?
    Yes ☐   No ☐

APPENDIX 2: SPSS RESULTS

Group Statistics for difference in the academic performance of male and female students

	Sex	N	Mean	Std. Deviation	Std. Error Mean
Current CGPA	Male	144	3.4454	.83785	.06982
	Female	236	3.8138	.74021	.04818

Independent Samples Test difference in the academic performance of male and female students

		Levene's test for equality of variances		t-test for equality of means						95% confidence interval of the difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference		Lower	Upper
Current CGPA	Equal variances assumed	2.909	.089	-4.475	378	.000	-.36844	.08233		-.53032	-.20655
	Equal variances not assumed			-4.343	273.845	.000	-.36844	.08483		-.53545	-.20143

ANOVA for library visitation

Current CGPA

	Sum of squares	df	Mean Square	F	Sig.
Between Groups	26.047	3	8.682	15.167	.000
Within Groups	215.239	376	.572		
Total	241.286	379			

Multiple Comparisons for library visitation

Dependent Variable: Current CGPA

 Scheffe

(I) How often do you visit the library?	(J) How often do you visit the library?	Mean difference (I-J)	Std. error	Sig.	95% confidence interval	
					Lower bound	Upper bound
Daily	Occasionally	.02445	.15568	.999	-.4127	.4616
	Rarely	.43735	.15701	.053	-.0036	.8783
	Never	.68436[*]	.17103	.001	.2041	1.1646
Occasionally	Daily	-.02445	.15568	.999	-.4616	.4127
	Rarely	.41290[*]	.08944	.000	.1617	.6641
	Never	.65991[*]	.11224	.000	.3447	.9751
Rarely	Daily	-.43735	.15701	.053	-.8783	.0036
	Occasionally	-.41290[*]	.08944	.000	-.6641	-.1617
	Never	.24701	.11409	.198	-.0734	.5674
Never	Daily	-.68436[*]	.17103	.001	-1.1646	-.2041
	Occasionally	-.65991[*]	.11224	.000	-.9751	-.3447
	Rarely	-.24701	.11409	.198	-.5674	.0734

. The mean difference is significant at the 0.05 level

ANOVA for daily study hours

Current CGPA

	Sum of squares	df	Mean square	F	Sig.
Between Groups	14.952	4	3.738	6.193	.000
Within Groups	226.334	375	.604		
Total	241.286	379			

Multiple Comparisons for daily study hours

Dependent Variable: Current CGPA

 Scheffe

(I) How long do you spend studying in a day?	(J) How long do you spend studying in a day?	Mean difference (I-J)	Std. error	Sig.	95% confidence interval	
					Lower bound	Upper bound
0-5hrs	6-10 hrs	-.37044[*]	.09685	.006	-.6703	-.0706
	11-15 hrs	-.59639	.21285	.100	-1.2553	.0625
	16-20 hrs	-.54782	.55134	.912	-2.2546	1.1589
	21 hrs & above	-.78082	.35058	.293	-1.8661	.3044

6-10 hrs	0-5 hrs	.37044*	.09685	.006	.0706	.6703
	11-15 hrs	-.22595	.22427	.907	-.9202	.4683
	16-20 hrs	-.17738	.55585	.999	-1.8981	1.5433
	21 hrs & above	-.41038	.35763	.858	-1.5175	.6967
11-15 hrs	0-5 hrs	.59639	.21285	.100	-.0625	1.2553
	6-10hrs	.22595	.22427	.907	-.4683	.9202
	16-20hrs	.04857	.58727	1.000	-1.7694	1.8666
	21 hrs & above	-.18443	.40475	.995	-1.4374	1.0685
16-20 hrs	0-5 hrs	.54782	.55134	.912	-1.1589	2.2546
	6-10 hrs	.17738	.55585	.999	-1.5433	1.8981
	11-15 hrs	-.04857	.58727	1.000	-1.8666	1.7694
	21 hrs & above	-.23300	.64999	.998	-2.2451	1.7791
21 hrs & above	0-5 hrs	.78082	.35058	.293	-.3044	1.8661
	6-10 hrs	.41038	.35763	.858	-.6967	1.5175
	11-15 hrs	.18443	.40475	.995	-1.0685	1.4374
	16-20 hrs	.23300	.64999	.998	-1.7791	2.2451

*. The mean difference is significant at the 0.05 level

ANOVA for CGPA across faculties

Current CGPA

	Sum of squares	df	Mean square	F	Sig.
Between Groups	7.100	5	1.420	2.268	.047
Within Groups	234.186	374	.626		
Total	241.286	379			

Group Statistics for difference in the academic performance of students who are active members and those who are not active members of their departmental association

	Are you an active member of your departmental association?	N	Mean	Std. deviation	Std. error mean
Current	Yes	111	3.9768	.69202	.06568
CGPA	No	269	3.5493	.80633	.04916

Independent samples test for difference in the academic performance of students who are active members and those who are not active members of their departmental association

		Levene's test for equality of variances		t-test for equality of means					95% confidence interval of the difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference	Lower	Upper
Current CGPA	Equal variances assumed	2.753	.098	4.891	378	.000	.42754	.08741	.25567	.59940
	Equal variances not assumed			5.211	237.212	.000	.42754	.08204	.26591	.58917

ANOVA for Weekly Sport Hours

Current CGPA

	Sum of squares	df	Mean square	F	Sig.
Between Groups	1.340	4	.335	.524	.718
Within Groups	239.946	375	.640		
Total	241.286	379			

ANOVA for membership of BBSF units/groups

Current CGPA

	Sum of squares	df	Mean square	F	Sig.
Between Groups	29.028	4	7.257	12.821	.000
Within Groups	212.258	375	.566		
Total	241.286	379			

Multiple Comparisons for membership of groups

Dependent Variable: Current CGPA

Scheffe

(I) How many other groups do you belong?	(J) How many other groups do you belong?	Mean difference (I-J)	Std. error	Sig.	95% confidence interval	
					Lower bound	Upper bound
None	One	-.51897[*]	.09040	.000	-.7988	-.2391
	Two	-.48351[*]	.11213	.001	-.8306	-.1364
	Three	-.82453[*]	.19585	.002	-1.4308	-.2183
	Four and above	-.63786	.31196	.384	-1.6036	.3278
One	None	.51897[*]	.09040	.000	.2391	.7988
	Two	.03546	.12160	.999	-.3410	.4119
	Three	-.30556	.20142	.681	-.9291	.3180
	Four and above	-.11889	.31548	.998	-1.0955	.8577
Two	None	.48351[*]	.11213	.001	.1364	.8306
	One	-.03546	.12160	.999	-.4119	.3410
	Three	-.34102	.21206	.630	-.9975	.3154
	Four and above	-.15435	.32238	.994	-1.1523	.8436
Three	None	.82453[*]	.19585	.002	.2183	1.4308
	One	.30556	.20142	.681	-.3180	.9291
	Two	.34102	.21206	.630	-.3154	.9975
	Four and above	.18667	.36016	.992	-.9283	1.3016
Four and above	None	.63786	.31196	.384	-.3278	1.6036
	One	.11889	.31548	.998	-.8577	1.0955
	Two	.15435	.32238	.994	-.8436	1.1523
	Three	-.18667	.36016	.992	-1.3016	.9283

*. The mean difference is significant at the 0.05 level.

Group statistics for involvement in boyfriend/girlfriend relationship

	Are you in a relationship?	N	Mean	Std. deviation	Std. error mean
Current	Yes	212	3.6197	.90217	.06196
CGPA	No	168	3.7429	.63871	.04928

Independent samples test for involvement in boyfriend/girlfriend relationship

		Levene's Test for equality of variances		t-test for equality of means					95% confidence interval of the difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference	Lower	Upper
Current CGPA	Equal variances assumed	21.289	.000	-1.497	378	.135	-.12318	.08228	-.28497	.03861
	Equal variances not assumed			-1.556	373.525	.121	-.12318	.07917	-.27885	.03249

ANOVA for social media presence

Current CGPA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	20.281	4	5.070	8.603	.000
Within Groups	221.006	375	.589		
Total	241.286	379			

Multiple comparisons for social media Usage

Dependent Variable: Current CGPA

Scheffe

(I) How many hours do you spend on social media daily?	(J) How many hours do you spend on social media daily?	Mean difference (I-J)	Std. error	Sig.	95% confidence interval	
					Lower bound	Upper bound
0-5hrs	6-10hrs	.10870	.09052	.837	-.1715	.3889
	11-15hrs	.59080*	.13733	.001	.1657	1.0159
	16-20hrs	.18555	.18887	.915	-.3991	.7702
	21hrs&above	.99221*	.22813	.001	.2860	1.6984
6-10hrs	0-5hrs	-.10870	.09052	.837	-.3889	.1715
	11-15hrs	.48210*	.14557	.028	.0315	.9327
	16-20hrs	.07685	.19495	.997	-.5266	.6803
	21hrs&above	.88351*	.23318	.007	.1617	1.6054
11-15hrs	0-5hrs	-.59080*	.13733	.001	-1.0159	-.1657
	6-10hrs	-.48210*	.14557	.028	-.9327	-.0315
	16-20hrs	-.40525	.22061	.498	-1.0882	.2777
	21hrs&above	.40141	.25503	.649	-.3881	1.1909
16-20hrs	0-5hrs	-.18555	.18887	.915	-.7702	.3991
	6-10hrs	-.07685	.19495	.997	-.6803	.5266
	11-15hrs	.40525	.22061	.498	-.2777	1.0882
	21hrs&above	.80667	.28610	.096	-.0790	1.6923
21hrs&above	0-5hrs	-.99221*	.22813	.001	-1.6984	-.2860
	6-10hrs	-.88351*	.23318	.007	-1.6054	-.1617
	11-15hrs	-.40141	.25503	.649	-1.1909	.3881
	16-20hrs	-.80667	.28610	.096	-1.6923	.0790

*. The mean difference is significant at the 0.05 level

Group statistics for secondary school attended

	Secondary school attended	N	Mean	std. deviation	Std. error mean
Current CGPA	Public	43	3.5167	.95680	.14591
	Private	337	3.6943	.77466	.04220

Independent samples test for secondary school attended

		Levene's test for equality of variances		t-test for equality of means						95% confidence interval of the difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference		Lower	Upper
Current CGPA	Equal variances assumed	6.079	.014	-1.376	378	.170	-.17754	.12906		-.43130	.07622
	Equal variances not assumed			-1.169	49.277	.248	-.17754	.15189		-.48273	.12765

Class of degree * use of social media crosstabulation

Count

		Use of social media		Total
		Less than 6 hours daily	At least 6 hours daily	
Class of Degree	First Class	24	14	38
	Second class Upper	70	30	100
	Second Class Lower	30	16	46
	Third Class	9	24	33
Total		133	84	217

Chi-square tests for class of degree * use of social media

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.648[a]	3	.000
Likelihood Ratio	19.363	3	.000
Linear-by-Linear Association	10.029	1	.002
N of Valid Cases	217		

Class of degree * lecturer's approach crosstabulation

Count

		Lecturer's approach		Total
		Lecture method	Teaching method	
Class of Degree	First Class	33	30	63
	Second class Upper	87	95	182
	Second Class Lower	50	47	97
	Third Class	19	19	38
Total		189	191	380

Chi-Square Tests for Class of Degree * Lecturer's Approach

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.577[a]	3	.902
Likelihood Ratio	.577	3	.902
Linear-by-Linear Association	.001	1	.972
N of Valid Cases	380		

Class of degree * study habit crosstabulation

Count

		Study Habit		Total
		Less than 6 hours daily	At least 6 hours daily	
Class of Degree	First Class	39	24	63
	Second class Upper	122	60	182
	Second Class Lower	79	18	97
	Third Class	35	3	38
Total		275	105	380

Chi-square tests for class of degree * study habit

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.438[a]	3	.001
Likelihood Ratio	19.430	3	.000
Linear-by-Linear Association	16.447	1	.000
N of Valid Cases	380		

Class of degree * participation in extracurricular activities crosstabulation

Count

		Participation in extracurricular activities		Total
		None	At least One	
Class of Degree	First Class	39	24	63
	Second class Upper	143	39	182
	Second Class Lower	81	16	97
	Third Class	36	2	38
Total		299	81	380

Chi-square tests for degree * participation in extracurricular activities

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.759[a]	3	.000
Likelihood Ratio	18.366	3	.000
Linear-by-Linear Association	15.991	1	.000
N of Valid Cases	380		

Class of degree * relationship status crosstabulation

Count

		Relationship status		Total
		Yes	No	
Class of Degree	First Class	38	25	63
	Second class Upper	97	85	182
	Second Class Lower	44	53	97
	Third Class	33	5	38
Total		212	168	380

Chi-square tests for class of degree * relationship status

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.115[a]	3	.000
Likelihood Ratio	22.310	3	.000
Linear-by-Linear Association	1.631	1	.202
N of Valid Cases	380		

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