



## Factors Affecting Academic Performance among Undergraduates of Federal University Gashua, Yobe State, Nigeria

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### **Abstract**

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*The study investigated factors affecting academic performance among undergraduate of Federal University Gashua, Nigeria. One hundred and fifty (150) participants with an age range of 22 years old were selected using multi stage sampling. Four hypotheses generated for the study were tested using Chi Square. Results showed there was a significant relationship between student factors and academic performance [ $X^2 = 50.00$  ( $df = 8$ )  $< .05$ ]. Also, there was a significant relationship between teacher's factors and academic performance [ $X^2 = 48.71$  ( $df = 8$ )  $< .05$ ]. It was therefore concluded that academic performance among undergraduate student was implicated from students and teachers factors. The study thereby recommended the welfare of teachers/ lecturers be adequately taken care of in terms of wages, working conditions, and training by the stakeholders, as this will enhance knowledge, physical, and psychological wellbeing for lecturers/teachers while also, reducing stress, and enhancing teaching practices and quality that will impact knowledge and learning. Secondly, stakeholders of education especially in the Northern Nigeria should ensure uniformity in language of instruction across primary, and secondary institutions of learning for their pupils/students so as to mitigate challenges of language barrier among undergraduate students.*

**Keywords:** *Academic Performance, Students Factors, Institutional Factors, Teachers Factors, Environmental Factors*

## Introduction

The outcome of every academic platform is measured by the performance of its product (students), enabling stakeholders to gauge set goals and objectives, however, results outcome of undergraduate has been worrisome, with malpractice apparently becoming a monster

Academic performance as such, presents as a multifaceted construct that is made up of cognitive, affective and psychomotor domains, with a variety of goals and outcomes (Mallillin, 2020). The cognitive domain which is most commonly used deals with mental skills involving the intellectual aspect of learning; the affective domain on the other hand includes objectives relating to interest, feelings, emotions, attitudes, and values relating to learning the information; while the psychomotor domain explains motor skills and actions that requires physical coordination (Anderson, Krathwohl, Airasian, Cruikshank, Mayor, Pintrich, Rath & Wittrock, 2011). Academic performance therefore encompasses behavioural changes in all aspect of a program other than the development of just the psychomotor and affective domains. Hence, it is an important concept that is described to affect the whole being of an individual, prompting emotional reactions such as happiness, trust, and personal satisfaction in the face of success, while sadness, depression, and frustration abounds failure ( Edogdu as cited in Sirin & Sahin, 2020). Students with high academic achievement therefore are less likely to develop or demonstrate antisocial behaviours than those with low achievement. Academic performance can therefore be influenced by physical, social, and psychological factors which can be explored under, teachers, environmental, and student factors in the study.

The teacher/ lecturer as a factor influencing academic performance within an instructional environment is responsible for interpreting and implementing the curriculum, a role which cannot be under estimated. Kayaler and Guler (2017) found a number of teachers lack the required specialized as well as technical skills, resulting to negative impacts on the students learning and performance. This implies that an instructors knowledge of a course, his technical ability to stimulate and maintain interest and to clearly explain concepts, and stimulate thinking among students, organisation of lectures, affect teaching quality and students' performance because, if a course is well articulated by an instructor, it will enable students' to form schemas (mental representation of information) about the subject matter, because learning is a mental process.

This schema in turn will be coded and saved in the memory system so as to be retrieved when needed for examination. Furthermore, low level of motivation/ remuneration among lecturers/ teachers in developing countries including Nigeria, results in lower quality of education and academic performance (Akinfolarin & Ehinola, 2014). With implication that increased pay, and other forms of compensation has a strong link in student performance (Ordway (2020). However, the welfare of teachers/ lecturers from the primary, to the tertiary level in Nigeria receives little attention, culminating frequent industrial where in, universities are sometimes closed down for a whole session. This has no doubt culminated physical, economic, social consequences on academics with antecedent psychological distress, capable of affecting motivation to impact knowledge.

Consequently, on the side of students active engagement in learning activities can also be linked to higher academic performance (Fenollar, Roma'n & Cuestas,2007) because students that are stimulated, motivated and actively engaged in learning activities, with a good English proficiency are associated with good academic performance, indicating that if students have strong communication skills and strong grip of English, they will indicate better understanding and output (Harbs & El-Shaarawi, 2006; Trice (200), and do well academically with active learning playing a significant role in their' academic performance (Ali, Jusoff, Mokhtar & Salam , 2009; 2006; Trice, 2007). Without which they may lack self-motivation, with truant academic attitude leading

to poor academic performance (Ali, Zubair, & Fahar, 2013). Hence, explained using the Achievement Motivation Theory according to McClelland (1951), different type of motivation affect peoples' performance within a setting, proposing three types of motivation; motivation for achievement, motivation for affiliation and power. For the purpose of this study however, the motivation for achievement will be of interest: those who are motivated by achievement work hard and push themselves to limits of their ability in order to improve themselves and get tangible results by engaging in difficult and more challenging task because for them, it is an opportunity to better themselves. They then believe in continuing attempt in order to succeed and strive to improve their skills as they see success as a personal responsibility. In contrast with failure avoidance, those who are motivated to avoid failure put in little efforts in to whatever they do and focus on mere passing the task rather than exceeding expectations and as a result, people with failure avoidance motivation are more likely to take on simple task in order to put in only little efforts, and can even give up at the slightest difficulty to go for something else. Going by this theory of achievement motivation, students will display poor academic performance if they are motivated only to avoid failure by engaging in study habits that would only fetch them a pass rather than been motivated to achieve beyond expectations by making repeated attempts on difficult task in order to succeed.

Thus environment in which learning occurs also has a profound role in learning, and is often described as a necessity in considering students' academic performance, Imeokparia, (2018) describe school environment to mean the extent to which school setting promote students safety and health, which may include; physical plant, academic environment, available physical and mental health support and services. However, the concept is used here to indicate a function of climatic conditions involving extreme temperature which includes humidity and solar radiation due to the temperate nature of the region. Extreme environmental condition involving climate is told to have an influence on peoples' livelihood with variance between and across the seasons of the year (Monguno, Jimme, & Monguno, 2017). Stressing that radiation temperature, and relative humidity in an environment are climatic elements that affect the physiological functioning of the human body, altering comfort and wellbeing because, as humans we are constantly exposed to atmospheric changes whether indoors or outdoors. The body in an effort to adjust to changes in the atmospheric temperature thereby engages thermal stressor, bringing about stress in itself (Beta, & Garg, 2005; Monguno, Jimme, & Monguno, 2017). Thus, indicating that extreme temperature whether hot or cold have implications for both teaching and learning outcome due to its effect on the brain, and is always in constant check and regulation until an equilibrium temperature is achieved (Earthman 2004; the National Union of Teachers , 2010).

This in effect alters attention which is a key mental process to learning and memory consolidation. This has been buttressed by reports from the Environmental Protection Agency maintaining that poor indoors temperature and humidity not only affects learner's performance but also affects teachers, while also, Monguno, Jimme, and Monguno (2017) establish a relationship between temperature variation and academic achievement of students.

In view, industrial actions by the academic staff union of universities has always accentuated over crowded classroom among other factors calling for revitalization of Nigerian universities so to cushion the effect of harsh environmental condition to no avail. This in effect has a profound consequence on student academic performance especially in an arid Sahara zones like Gashua, making it an issue of concern.

In view, no study of note has investigated and documented findings on factors that could affect academic performance among undergraduate of FUGA, making this study a pioneer study of the institution on the subject matter.

The following research questions were raised:

- i. What is the relationship between environmental factors and academic performance?
- ii. What is the relationship between teachers' factors and academic performance?
- iii. What is the relationship between students' factors and academic performance?

The study hypothesized that:

- i. There will be a relationship between environmental factors and poor academic performance.
- ii. There will be a relationship between teachers' factors and academic performance.
- iii. There will be a relationship between students' factors and academic performance.

## Methods

### Design

A correlational design was adopted for the study due to the fact that the researcher was interested in the relationship that existed in the studied variables

### Participants

150 (100%) participants were selected in the study comprising of 111(74%) male and 39 (26%) female, in an age range of 17 and 39, coded as : 1(17-22), 2(23-28), 3(29-34), 4(35-40), with 1 and 4 as the minimum and maximum responses respectively.

### Sampling Technique

150 participants were selected in a multi stage sampling technique, drawn from a total of two hundred and fifty (250) undergraduate students of the Federal University Gashua. Comprising of departments of Psychology (N=10, 6.6%); Accounting (N=10, 6.6%); Business Administration (N=06, 4%); Political science (N=12, 8%); Economics and Development Studies (N=10, 6.6 %); History(N=10, 6.6%); English (05, 3.3%); Geography(N=17, 11.3%); Islamic Studies(N=04, 2.6%) for the Faculty of Arts Management and Social Sciences; Departments of Biological sciences(N=17, 11.3%); Biochemistry(N=10, 6.6%); chemistry(N=09, 6%); computer sciences(N=09, 6%); mathematics(N=12, 8%); and physics (N=10, 6.6%) for the faculty of Sciences.

### Instrument

A self-developed scale measuring Students, Institutional and Teachers Variables was used to obtain responses from participants in the study. Items were generated, contently and facially validated, with a concurrent validity of 0.56 when correlated with Ercetin, Gurgor, and Hamedoglu (2020) scale. An Alpha coefficient of 0.62 was reported for the scale in this study, and a norm of 12.34, with a standard deviation of 4.28. The 28 item instrument is rated Yes and No where yes attracted 1 and No attracted 0. Sample items are: *engagement in school politics; negative peer influence affect my study habit;* (Students variables subscale). *Poorly ventilated classrooms, no useful books in the library* (Institutional Variables subscale). *My lecturers are not knowledgeable, my lecturers come to class unprepared* (Teachers variable subscale). *The weather is usually too hot to concentrate; I feel stressed up to attending lectures when the weather is hot* (Environmental Variables subscale). The instrument is scored by determining the frequency and percentages of the "Yes" and "No" responses obtained from the questions items on the scale. Interpretation for implication is based on the frequency of the Yes response option i.e. If the yes response option obtain the highest frequency on a particular dimension, the dimension is implicated in academic performance, but if on the other hand the "No" option receives the highest frequency, it then means the dimension is not implicated in academic performance.

## Procedure

The research instrument was administered with the aid of research assistants whom were lecturers in same departments. The research assistants were given copies of the questionnaires slightly in excess of the number of participants in their departments and the questionnaires, distributed based on the sampled number in the stipulated departments. Moreover, respondents were given unspecified time to complete the questionnaires which were retrieved after completion. Although, complete retrieval could not be achieved as only one hundred and twelve (112) questionnaires out of the one hundred and fifty (150) were retrieved due to the fact that: the school went on vacation and accessibility to the other participants by both researcher and the research assistants was not possible however, the accessed participants had completed questionnaires retrieved, thanked and debriefed accordingly.

## Data Analysis

Data obtained from participants was analysed using chi square in order to ascertain relationship that existed between the studied variables

## Results

### Hypothesis 1

Hypothesis 1 stated that there will be a relationship between students' factors and academic performance among undergraduate of Federal University, Gashua

**Table 1:** Summary of Chi Square analysis of students' factors and academic performance

<i>Chi Square</i>	<i>Df</i>	<i>p</i>
50.00	8	< .05

Table 1 shows the chi square result of the relationship between students' factors and academic performance. The summary of chi square result revealed there was a relationship between students' factors and academic performance ( $X^2 = 50.00$ ,  $(df= 08) < .05$ ). This means that factors relating to the students are implicated in the academic performance of the students.

### Hypothesis 2

Hypothesis 2 stated that there will be a relationship between teachers' factors and academic performance among undergraduate students of Federal University Gashua

**Table 2:** Summary of Chi Square analysis of teachers' factors and academic performance

<i>Chi square</i>	<i>Df</i>	<i>P</i>
48.71	8	< .05

Table 2 shows the summary of chi square result of the relationship between teachers' factors and academic performance among undergraduate students of Federal University Gashua. Result revealed that teachers factors has an implication in academic performance ( $X^2 = 48.71$ ,  $df = 08 < .05$ ) among undergraduate students of Federal University Gashua.

### Hypothesis 3

Hypothesis 3 stated that there will be a relationship between environmental factors and academic performance among undergraduate students of Federal University Gashua.

**Table 3:** Summary of Chi Square analysis of environmental factors and academic performance

<i>Chi Square</i>	<i>Df</i>	<i>p</i>
19.958	8	> .05

Table 3 shows the summary of chi square result of the relationship between environmental factors and academic performance among undergraduate students of Federal University Gashua. Result revealed that environmental factors has no significant relationship with academic performance ( $(X^2 19.95, df = 08 > .05)$ ) among undergraduate students of Federal University Gashua.

### Discussion

The result from this study has confirmed the first hypothesis due to the fact that students' factors had a significant relationship with academic performance among undergraduate students of Federal University, Gashua. This further supports the students themselves are implicated in their academic achievement which is measured by their performance, for reasons been that learning is a mental process which causes a relative permanent change in behavior that occur as a result of practice or experience, involving factors like motivation, attention, language, tenacity, and memory etc. However, learning could be hampered when these factors are not in place on the part of the students

This finding is therefore in conformity with Ali, Zubair, and Fahar (2013) who affirm to insufficient efforts from students, lack of self-motivation, student academic attitude. Where in, emotional reaction such as happiness, trust, and personal satisfaction could be prompted *in the face of success*, and on the other hand, sadness, depression, and frustration will be encountered in the face of failure (Edogdu 2006 in Sirin & Sahin, 2020). Also in conformity active engagement in learning activities is aligned to be linked to higher academic performance (Fenollar, Roma'n & Cuestas, 2007), because students that are stimulated, motivated and actively engaged in learning activities do well academically with active learning playing a significant role on their' academic performance (Ali, Jusoff, Mkhtar & Salam, 2009).

Findings also agree with Harbs and El-Shaarawi, (2006); Trice (2007) whose assertions affirmed that English proficiency among students is indirectly associated with academic performance, indicating that if students have strong communication skills and strong grip of English, it increases the performance of such students illustrating that; performance of students is highly affected by communication skills thereby making language barrier one of the indispensable factor in academic performance.

Hypothesis 2 was also confirmed because teachers' factors significantly predicted academic performance in the study. This implied that teachers/ lecturers as interpreters of the curriculum, should be periotised if education is to succeed in Nigeria and take its rightful place, where in, the reverse is the case This in a long run has culminated incessant industrial action by the Academic Staff Union of Universities (ASUU). Findings conform to Kingdom (1996) who found teacher remuneration to play a role in student academic performance. It therefore



follows that: teachers that are poorly remunerated put on attitudes that scare students away from school because, such teacher adopts bad teaching methods by cursing and calling the students derogatory name that often lead up to absenteeism and truancy on the side of the students, which in turn affects the students' performance as a result of their been truant and absent from school.

Also, in congruence, Akinfolarin and Ehinola (2014), found that lecturers/ teacher's motivation/remuneration in developing countries including Nigeria has widespread low or decreasing level of motivation, resulting in lower quality of education and academic performance. Also in addition, findings align with Ordway (2020) establishing a strong link between increased pay whether through salary hike with gains in student performance. Finding also supports Kayaler and Guler (2017) asserting a number of teachers lack the required specialized education in subjects/ courses as well as technical skills for comprehending the necessities of topics, resulting to negative impacts on the students learning and performance implying that an instructors knowledge of a course, his preparedness for a class, ability to stimulate and maintain interest for study, ability to clearly explain concepts, and stimulate thinking among students, organization of lectures, and tying information together affect teaching quality and thus students' performance because, if a course is well articulated by an instructor, it will enable students' to form mental schemas about the subject matter, since learning is a mental process. Poor teachers welfare/remuneration has culminated frequent industrial actions as mentioned earlier by the Academic Staff Union of universities (ASUU), where in universities are sometimes closed down for a whole session with the most resent industrial action lasting between March, 2020 to February, 2021.

Hypothesis 3 was disconfirmed in the study for reasons been that environmental factors had no influence on the academic performance of students in the study. Hence, findings disagree with reports from the Environmental Protection Agency maintaining; Monguno, Jimme, and Monguno (2017) who found poor indoors temperature and humidity not only affects learner's performance but also affects teachers, which also, establish a relationship between temperature variation and academic achievement of students. Though incongruence, Chukuemeka (2013) affirms to facts that environmental factors are crucial in academic performance and also significant in the life of every individual whether student, teacher, employer, or employee, and to a large extent affects both the physical and psychological being of the individual, which in turn, accounts for students failing to develop their potentials due to inadequate environmental stimulations.

## **Conclusion**

Based on the findings of this study, it was therefore concluded that academic performance among undergraduate student of FUGA was implicated from students and teachers factors.

## **Recommendation(s)**

Based on the findings in the study, it was recommended that;

The welfare of lecturers/teachers be adequately taken care of in terms of wages, working conditions, and training, this will enhance knowledge, physical, and psychological wellbeing for lecturers/teachers, while also reducing stress, and enhancing teaching practices and quality that will impact knowledge and learning.

Secondly, stakeholders of education especially in the Northern Nigeria should ensure uniformity in language of instruction across primary, and secondary schools for student so as to mitigate challenges of language barrier among undergraduates

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