

# VARIABLE FACTORS ON EXAMINATION MALPRACTICES AMONG POLYTECHNIC UNDERGRADUATES

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## ABSTRACT

*Examination malpractices contravene the rules and regulations set by examination bodies. This paper examines variable factors on examination malpractice among Polytechnic undergraduates. Primary data were collected through validated instrument of questionnaire administration. Stratified random sampling was used for sample selection to elicit information from 285 respondents who were undergraduates from six faculties in Federal Polytechnic, Bauchi. Logistic regression was used for data analysis. The result revealed that individual gender, hours of study and stream of study are though not significant on involvement of undergraduate in examination malpractices, undergraduate that studies for more hours are not likely to be involved in examination malpractices. On the other hand, there is significant and positive relationship between cumulative grade point and involvement in examination malpractices. There is also a significant and positive relationship between perception on examination malpractices and involvement in examination malpractices. The paper suggests that undergraduate should be enlightened on need to devote more hours to studies and have self belief in success without involvement in examination malpractices.*

**Keywords:** Logistic Regression, examination, malpractices, Odds Ratio

## INTRODUCTION

Education in the general sense covers the whole life of an individual from birth till death or from cradle to grave showing that education is as old as man on earth. The formal school system is greatly influenced in its result on the lives of all who pass through it. Education is the key to development in any nation and Nigeria is no exception. It is the foundation upon which physical and technological developments rest. In Nigeria, education has been adopted as an instrument for national development. Therefore, governments, communities, private organizations and individuals have established educational institutions with a view of training the citizens for the development of the nation's physical and human resources. The only way of assessing students' performance in such established institutions is through period examinations.

Examination is the measurement of proficiency or knowledge, skills, orally or written form, and judging the adequacy of these properties possessed by candidates, by evaluation. This

is the pivot around which the whole system of education evolves (Ammani, 2011). Examinations should be valid in the performance of its function; reliable in terms of consistency of measurement; and it should be able to evaluate the performance or judge the scholastic attainment of pupils or students. In some cases candidates are assessed on the content of a course they have acquired after a given period of time, by their lecturers or by an examining body.

Examination could be a one time or a continued form of assessment. Any wrong doing or illegal action taken for one's own benefit is a malpractice. Examination malpractice involves some form of cheating committed by examination candidates single handed or in collaboration with others; before, during, after the examination, to take undue advantage over others. Technically, it is an act that contravenes the rules and regulations of a particular examination body, set at a particular period of time. Examination irregularities are experienced at all levels of the education ladder – Primary, JSS, SSCE, tertiary levels. Plagiarism in students' report and project works, as well as in published research works are also some forms of malpractices in academia (Achio, 2005).

Examination malpractices include misrepresentation of identity or impersonation, cheating, theft of other student's work, tampering with the works of others, bringing prepared answers to examination halls, unethical use of academic resources, fabrication of results and showing disregard to academic regulations (Gross, 2003 and Owuamanman, 2005). These vices have been regarded as academic behaviour capable of truncating an educational system (Glasner, 2002 and Ogunwoyi, 2005).

Onah, (2012) defined examination malpractice as anything done by the examination candidate that is likely to render the assessment useless. Exam malpractice is therefore anything done by the stakeholder such as examination administrators, teachers, parents or students that is likely to render the assessment or examination ineffective or useless. For Umaru (2005) it is any form of fraudulent activity that aim at a better result than the candidate's actual intelligent and performance. It can also be regarded as any ungodly act exhibited before, during and after any examination by the following: typists, students, invigilators, examiners, principals, communities, teachers/course lecturers etc.

Exam malpractice can also be defined as any dishonest or deceitful act by a candidate(s) or any person(s) to contravene existing rules/regulations in order to obtain undue reward for oneself/others, or to disfavour anyone/other in any form of assessment of examination in the educational system. That is to say, when rules and regulations controlling the conduct of examination are violated, it is said that examination malpractice has been committed. Hence, any improper action carried out before, during and after the examination with the intention of cheating or having advantage constitute examination malpractice (Obidigbo 2011).

In recent times, this problem of examination malpractice has generated more serious discussion among the Nigerian literate population than any other educational issue, (Umaru 2005). This takes different shapes and forms in institutions of higher learning in Nigeria such as

sorting, leakages of paper etc. The rate of examination malpractice at all levels of education – from Primary to University – have assumed such frightening proportion that some harsh decision like cancellation of examination or results and expulsion of culprits from school have been taken to curb this odious behaviour. The Federal Military Government took a bold step by promulgating a decree which imposed a twenty one year jail term on those involved in examination malpractice, (Onah, 2010). How far this law or decree is enforced is another issue.

Bruno, Onyekuru and Obidigbo (2012) observed that malpractice is done by “girafing” or spying on their neighbours work, whispering answers, scribbling answer on desks, tables, walls of examination rooms, ceiling, and cloths. Some students indulge in impersonation, exchange of answer scripts within the exam hall and hiding necessary information concerning the exam in their hairs or shoes etc. Others store answers on their handsets or exchange written information in examination hall. Some dimensions include leakages such as, allowing candidates to see questions prior to the examination. In some cases, invigilators and supervisors turn blind eyes as candidates engage in examination malpractices. Another form is allowing examination to go beyond the stipulated time frame.

The persistent occurrence of examination malpractices has been a major concern to educationist (Aghenta, 2000 and Ige, 2002). Examination malpractice is therefore a cankerworm cum educational epidemic that should be eradicated at all cost and fast, too (Amaechi, 2001). Despite the high premium placed on examinations by the National Policy on Education (FGN, 2004), it seems that examination malpractices have not been properly addressed in Nigeria. Examination malpractice is one of the greatest problems which the Nigerian educational system in Nigeria is passing through today. In Federal Polytechnic, Bauchi stiffer penalty like withdrawal from institution have not really checked this menace as culprits are caught year in year out.

This paper seeks to examine impact of some factors such as gender, academic performance, perceptions of malpractices on involvement in examination malpractices using logistic regression approach.

## **MATERIAL AND METHOD**

This research is designed to employ the use of survey method to elicit information on variable factors of examination malpractice. The instrument used to collect data for this research was a through a pretested designed questionnaire. The questions in the questionnaire were centered on gender, perception on involvement in examination malpractices, hours of study, stream of study and cumulative grade point average (CGPA) and involvement in examination malpractice. The population of study were undergraduate students of Federal polytechnic, Bauchi from where 285 samples were selected through the use of stratified random sample, across the six schools (faculty) in the Polytechnic.

### Logistic Regression

Logistic regression is a flexible method for modelling and testing the relationships between one or more quantitative and/or categorical explanatory variables and one binary (i.e., two levels) categorical outcome. Similar method was adopted by Ajao, Obafemi and Lawal (2011). The two levels of the outcome can represent anything, but generically we label one outcome "success" and the other "failure". Also, conventionally, we use code 1 to represent success and code 0 to represent failure. Then we can look at logistic regression as modelling the success probability as a function of the explanatory variables. Also, for any group of subjects, the 0/1 coding makes it true that the mean of Y represents the observed fraction of successes for that group.

Logistic regression resembles ordinary linear regression in many ways. There is usually an intercept parameter ( $\beta_0$ ) plus one parameter for each explanatory variable ( $\beta_1$  through  $\beta_k$ ), and these are used in the linear combination form:  $(\beta_0 + \beta_1x_1 + \dots + \beta_kx_k)$ .

In logistic regression, a complex formula is required to convert back and forth from the logistic equation to the OLS-type equation. The logistic formulas are stated in terms of the probability that  $Y = 1$ , which is referred to as  $p$ . The probability that Y is 0 is  $1 - p$

$$\ln\left(\frac{p}{1-p}\right) = \alpha + \beta_1x_1 + \beta_2x_2$$

$P$  can be computed from the regression equation also. So, if we know the regression equation, we could, theoretically, calculate the expected probability that  $Y = 1$  for a given value of  $X$ .

$$p = \frac{\exp(\beta_0 + \beta_1x_1)}{1 + \exp(\beta_0 + \beta_1x_1)} = \frac{e^{\beta_0 + \beta_1x_1}}{1 + e^{\beta_0 + \beta_1x_1}}$$

Logistic regression has been used to estimate the relationship between the independent variable (gender, perception on involvement in examination malpractices, hours of study, stream of study and cumulative grade point average and the dependent variable (involvement in examination malpractice) as a measure of examination malpractice.

### Data Analysis

Analysis of data was carried out using Minitab 16. Results obtained from analysis are presented in table below.

### Logistic Regression Table

Predictor	Coef	SE Coef	Z	P	Odds Ratio			95% CI	
					Lower	Upper	Lower	Upper	
Constant	5.80148	1.16588	4.98	0.000					
studing hour	0.167951	0.315008	0.53	0.594	1.18	0.64	2.19		
percep malpr	0.717120	0.423591	1.69	0.090	2.05	0.89	4.70		

gender	-0.384294	0.401305	-0.96	0.338	0.68	0.31	1.50
cgpa	-2.59857	0.431620	-6.02	0.000	0.07	0.03	0.17
stdy stream	-1.35997	0.876106	-1.55	0.121	0.26	0.05	1.43

**Log-Likelihood = -122.467**

**Test that all slopes are zero: G = 108.987, DF = 5, P-Value = 0.001**

## **DISCUSSION OF RESULTS**

Findings from the binary logistic regression analysis revealed that there is significant and positive relationship between undergraduates' perception on examination malpractice and involvement in examination malpractices (Odd Ratio [OR] = 2.05,  $p = 0.09$ ) i.e. Undergraduate that perceived nothing is wrong in examination malpractices are 2.05 times more likely to be involved in examination malpractices compared with those that perceived that examination malpractices is wrong. There is significant and positive relationship between CGPA and involvement in examination malpractices (OR = 0.07,  $p = 0.001$ ). Studying hours though not significant (OR = 1.18,  $p = 0.594$ ), undergraduates that had fewer hours of study are 1.18 times more likely to be involved in examination malpractices compared with those that had more hours of study. Gender is not significant in examination malpractices (OR = 0.68,  $p = 0.338$ ) i.e. both male and female are equally likely to be involved in malpractices. Study stream is not significant (OR = 0.26,  $p = 0.121$ ) i.e. study stream has no effect in involvement in examination malpractices.

## **CONCLUSION/ RECOMMENDATION**

From the results, it can be concluded that undergraduate that perceived nothing is wrong in examination malpractices are prone to be involved in examination malpractices compared with those that perceived that examination malpractices is wrong. CGPA has significant effect on involvement in examination malpractices. Undergraduates that had fewer hours of study are likely to be involved in examination malpractices. Gender has no significant effect on examination malpractices as both male and female undergraduates are equally likely to be involved in examination malpractices and study stream has no effect in involvement in examination malpractices. It is recommended that undergraduates should be enlightened on need to devote more hours to studies and have self belief in success without involvement in examination malpractices.

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