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Auwalu Shuaibu Muhammad, Danlami Hayyo

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Students' Perception on the Role of Computer Based Test in Curbing Examination Malpractice

Auwalu Shuaibu Muhammad

Directorate of Academic Planning, Federal University Gusau, Zamfara State

Email: ashmuhd79@gmail.com

Dr. Danlami Hayyo

School of Continuing Education, Bayero University Kano

Email: hayyod@yahoo.com

Abstract

This study explores students' perception on the role of computer based test in curbing examination malpractice among undergraduate students of Federal University Gusau, Zamfara state. The objectives of the study was to identify the factors that causes students to engage in examination malpractice, identify the challenges faced by students in the conduct of computer based test and explore the role of Computer based test in curbing examination malpractice among the students. The study adopted survey research design. The population of the study consists of 2001 level 100 students of the University out of which a sample of 322 was drafted as sample using stratified sampling technique. A researcher made questionnaire titled "the Role of Computer Based Test in Curbing Examination Malpractice (RCBTCREM) was used as data collection tool. Collected data was analyzed using descriptive statistics. Findings of the study revealed that quest for higher grade, societal emphasis on certificate, poor study habit, lack of self-confidence and poor teaching facilities are the major factors that causes undergraduate students to engage in examination malpractices. On the other hand, lack of basic computer knowledge and skills, none familiarization with computer based test and phobia in using the computer were found to be the major challenges faced by students in the conduct of computer based. Findings of the study further revealed that the use of computer based test serves as a viable tool in curbing the rate of candidate impersonation, copying other peoples' work, collusion among candidates, favorable award of marks, leaking of examination question papers and illegal assistance to students. The study recommended the use of CBT by external examination bodies and institutions of higher learning.

Keywords: Computer Based Test, Examination Malpractice.

Introduction

Globally, the provision of qualitative education has been the major policy provision towards the actualization of human and societal development. In Nigeria, the National Policy on Education (NPE) prescribes national guidelines and requirements for the effective

administration, management and implementation of education across all levels. The policy document has stated in clear terms the intentions, expectations, goals and standard for quality education delivery in Nigeria (NPE, 2014). Given the strategic role of education towards human and societal development, several mechanisms were put in place to measure the attainment of set educational goals. One of such measures was the use of examination. Examination as an assessment technique plays a vital role in the education system because it provides the necessary feedback on the overall teaching and learning processes. Mogapi (2016) postulated that data collected through examinations are used for making high stake decisions. However, the effectiveness of examination in assessing students' academic success had long been hampered due to the menace of examination malpractices across all levels of education. For decades, the conducts of both external and internal examinations have been trailed with complaints of examination malpractices. According to the West African Examination Council (WAEC) (2003) examination malpractice is any irregular behaviour or act exhibited by candidates or anybody charged with the responsibility of conducting examination in or outside the examination hall, before, during or after such examination with the aim of taking undue advantage. Abu Bakar, Muhammad and Abdallah (2016) identified lack of academic self-efficacy among the students as a major factor that prompts them to engage in examination malpractices. Onakwakpor (2005) in his study identified several factors which prompt students to engage in examination malpractices to include lack of qualified manpower, lack necessary teaching and learning facilities, lack of self-confidence among the students, poor to study habit by the students, demand for higher grades and undue emphasis on certificate possession and competition. These ugly practices were more or less institutionalized to the extent that no examination anywhere at all levels within and outside the formal school setting that has not witnessed one form of malpractice or the other thereby decimating examination which hitherto was the best tool for an objective assessment and evaluation of what a learner has achieved after a period of schooling/training (Anzene, 2014). In an effort to curb examination malpractice among students, various measures were put in place by the government among which was promulgation of Decree 20 of 1984 which stipulated that any person who fraudulently or with intent to cheat or secure any unfair advantage to himself or any other person or in abuse of his office, produces, sells or buys or otherwise deals with any question paper intended for the examination of persons at any examination or commits any of the offences specified in section 3 (27) (c) of this decree, shall be guilty of an offence and on conviction be sentenced to 21 years imprisonment. This was followed by examination malpractice act of 1999, which reverse the decree and postulated punishment to persons caught in acts of examination malpractices to a fine which ranges from N50, 000 to N100, 000 and three to four years imprisonment with or without option of fine. All these measures which were meant to curb the menace of examination malpractice could be said to be unsuccessful due to the raising nature of examination malpractice. In response, various external examination bodies such as the Joint Admission and Matriculation Board, National Examination Council and West African Examination Council introduced the use of Biometric data capturing to authenticate candidate to checkmate the menace (Oduwaiye, 2014; Anzene, 2014). To further abate examination malpractice, the Joint Admission Matriculation Board (JAMB), the body responsible for admission into Nigerian Universities went a step higher in 2013 with the use of Computer based tests (CBT) software in conducting it examination (Ajinaja, 2017).

As an innovative way of examining students, the CBT was found to be a superior test when compared paper-based test, but also found to affect test scores (Mason, Marc & Daniel, 2001;

Clariana & Wallace, 2002). Other studies concluded that computer-based test and paper-based test are nearly identical (Erturk et al., 2004). To sum it up, Clariana and Wallace (2002) postulated that the noticeable differences in computer-based test and paper-based test can be attributed to learners' characteristics in that learners with prior computer knowledge will tend to have higher academic achievement while taking a CBT examination than their counterparts with poor knowledge of computer. Thus, the CBT as an examination technique provided the same features that a traditional Examination System provides coupled with a reduction in the rate of expected examination malpractice, effective execution and evaluation of examination, user friendly and early delivery of results (Ajinaja, 2017). Other benefits that are associated with computer-based testing are that the method saves time for students under it. Choices are mostly made by a simple click of a mouse rather than writing thereby making it easy and fast for students who are familiar with computers and high attaining. Furthermore, examinees do not have to go to examination centers, instead they just can have an internet connection (Noyes and Garlandb, 2008). Above all, Ivy (2019) highlighted that under CTB, exam administrators have an opportunity to ensure test security, standard setting and forms assembly as it becomes hard for its content to be jeopardized or its items to be compromised. Hence, information and communication technology has enhanced the effectiveness and efficiency of educational assessment. The system has already played significant roles in the area of test administration and scoring, data analysis, data management and score reporting (Okoli et al., 2018).

In essence, computer based test if properly utilize have the tendency to reduce the alarming rate of examination malpractice, enhanced security in the conduct of examinations and provide immediate feedback (Sani & Mohammad, 2015; Aduwa-Ogiegbaen & Iyamu, 2005). Due to the effectiveness of CBT, paper and pencil test (PPT) or paper-based test (PBT) is gradually being phased out globally because of its inherent limitations that have allowed widespread malpractices during examinations (Onyibe et al., 2015). Since the emergence of ICT, schools, institutions and examination bodies have incorporated computer based test (CBT) as an indispensable tool in their examination administration. In view of the above, this study seeks to explore students' perception on the role of computer based test in curbing examination malpractice among undergraduate students of Federal University Gusau, Zamfara State.

Objectives of the Study

The objectives of the study are

- i. To identify the factors that causes students to engage in examination malpractice among undergraduate students of Federal University Gusau, Zamfara state.
- ii. To identify the challenges faced by students in the conduct of computer based test among undergraduate students of Federal University Gusau, Zamfara state.
- iii. To explore the role of Computer based test in curbing the rate of examination malpractice among undergraduate students of Federal University Gusau, Zamfara state.

Research Questions

The following research questions were raised to guide the study.

- i. What are the factors that cause students to engage in examination malpractice among undergraduate students of Federal University Gusau, Zamfara state?

- iv. What are the challenges faced by students in the conduct of computer based test among undergraduate students of Federal University Gusau, Zamfara state?
- v. What are the roles of Computer based test in curbing the rate of examination malpractice among undergraduate students of Federal University Gusau, Zamfara state?

Methodology

Descriptive research design was adopted in the conduct of the study. The population of the study consists of 2001 level 100 students of Federal University Gusau, Zamfara state across the four Faculties of the University namely Faculty of Science, Faculty of Management and Social Sciences, Faculty of Education and Faculty of Humanities. The population figure covers both male and female level 100 students that registered for 2020/2021 academic session. Using stratified sampling technique, a sample of 322 students was drawn. The sample size was drafted with the table for the determination of sample size developed by (Research Advisors, 2006).

A researcher made questionnaire titled “a Questionnaire on the Role of Computer Based Test in Curbing Examination Malpractice (QRCBTCREM) was used to collect data. The instrument consists of four sections. Section A of the instrument covers Bio data of the respondent, section B covers the causes of examination malpractices with seven items on four points Likert scale, section C covers the challenges faced by students while using CBT with seven items on four point Likert scale and section D of the instrument covers the role of CBT in curbing examination malpractice with seven items on four point Likert scale.

The instrument was validated by professionals from Test and Measurement, Department of Education Bayero University Kano. A reliability test was conducted using Cronbach’s alpha reliability test with a sample of 40 respondents. It was found that causes of examination malpractice has reliability index of .82, challenges has reliability index of .86 while the role of CBT has reliability index of .78.

Three hundred and twenty two (322) questionnaires were administered to students with aid of two research assistants. However, 298 of the questionnaires were retrieved. Collected data was analyzed using frequency counts, percentages, mean and standard deviation. Statistical Package for Social Sciences (SPSS) was used to analyzing the data.

Results

Research Question One

What are the factors that cause students to engage in examination malpractices among undergraduate students of Federal University Gusau, Zamfara state?

Table 1

Causes of Examination Malpractices

Students engage in examination malpractices due to.....

Item	SA	A	D	SD	Mean	SD	Decision
Poor educational background.	--	11(4%)	142(48%)	144(48)	1.56	.58	Rejected
lack of self-confidence	25(8%)	200(67%)	73(25%)	--	2.83	.55	Accepted
Poor teaching facilities	11(4%)	182(61%)	92(31%)	13(4%)	2.64	.62	Accepted
poor study habits	75(25%)	150(50%)	25(9%)	48(16%)	2.84	.97	Accepted
Quest for higher grades	112(38%)	186(62%)	--	--	3.37	.48	Accepted
lack of study time	--	2(1%)	141(47%)	155(52%)	1.48	.51	Rejected
societal emphasis on certificate	76(26%)	153(51%)	64(21%)	5(2%)	3.00	.73	Accepted

Descriptive statistics was used to explore factors that cause students to engage in examination malpractice. From table 1, quest for higher grade M= 3.37, SD= .48, societal emphasis on certificate M= 3.00, SD= .73, poor study habit among the students M= 2.84, SD= .97, lack of self-confidence M= 2.83, SD= .55 and poor teaching facilities M= 2.64, SD= .62 were found to be the major factors that causes students to engage in examination malpractice.

Research Question Two

What are the challenges faced by students in the conduct of computer based test among undergraduate students of Federal University Gusau, Zamfara state?

Table 2

Challenges towards the use CBT

A major challenge among students in the conduct of Computer Based Test is.....

Items	SA	A	D	SD	Mean	SD	Decision
Lack of basic computer Knowledge and skills among the students.	157(53%)	141(47%)	--	--	3.52	.50	Accepted
Non familiarization with computer based test	85(28%)	199(67%)	14(5%)	--	3.23	.52	Accepted
Lack of prompt technical assistance	--	3(1%)	141(47%)	154(52%)	1.49	.53	Rejected
Poor network	3(1%)	9(3%)	140(47%)	146(49%)	1.56	.60	Rejected
System malfunction	--	3(1%)	141(47%)	154(52%)	1.49	.53	Rejected
Interruption in power supply	--	12(4%)	142(48%)	144(48%)	1.56	.58	Rejected
Phobia in using the computer	11(4%)	182(61%)	92(31%)	13(4%)	2.64	.62	Accepted

Descriptive statistics was equally used to explore the challenges faced by students in the conduct of computer based test. From table 2, lack of basic computer Knowledge and skills among the students M= 3.52, SD= .50, none familiarization with computer based test M= 3.23, SD= .52, and phobia in using the computer M= 2.64, SD= .62 were found to be the major challenges faced by students in the conduct of computer based test.

Research Question Three

What are the roles of Computer based test in curbing the rate of examination malpractice among undergraduate students of Federal University Gusau, Zamfara state?

Table 3

*Role of Computer Based Test in curbing Examination Malpractices
Computer based test is an effective tool towards curbing*

Item	SA	A	D	SD	Mean	SD	Decision
Illegal assistance to students	25(8%)	200(67%)	73(25%)	--	2.83	.55	Accepted
Candidates' impersonation	93(31%)	205(69%)	--	--	3.31	.46	Accepted
Leaking of examination questions papers	63(21%)	159(53%)	55(19%)	21(7%)	2.88	.81	Accepted
Favourable award of marks	81(27%)	208(70%)	7(2%)	2(1%)	3.23	.51	Accepted
Copying other peoples' work	94(32%)	204(68%)	--	--	3.31	.46	Accepted
Smuggling of foreign materials into the examination venue	--	12(4%)	142(48%)	144(48%)	1.57	.54	Rejected
Collusion among candidates	75(25%)	219(74%)	4(1%)	--	3.23	.45	Accepted

Descriptive statistics was equally used to examine the role of computer based test in curbing the rate of examination malpractices. From table 3, computed result shows that the use of computer based test serves as an effective tool towards curbing the rate of candidate impersonation $M= 3.31$, $SD= .46$, copying other peoples' work $M= 3.31$, $SD= .46$, collusion among candidates $M= 3.23$, $SD= .45$, favorable award of marks $M= 3.23$, $SD= .51$, leaking of examination question papers $M= 2.88$, $SD= .81$, and illegal assistance to students $M= 2.83$, $SD= .55$.

Discussion

This study explores students' perception on the role of computer based test in curbing examination malpractices. The objectives of the study was to identify the factors that causes undergraduate students to engage in examination malpractice and to identify the challenges faced while during computer based test. The study equally seeks to examine the roles computer based test played in curbing examination malpractice among undergraduate students.

Findings of the study revealed that quest for higher grade, societal emphasis on certificate, poor study habit, lack of self-confidence and poor teaching facilities were the major factors that causes undergraduate students to engage in examination malpractices. The finding corroborated the work of Anzene (2014) whose work revealed that inadequate teaching/learning facilities and much emphasis on paper qualification encourages examination malpractice among students. The findings was equally in line with that of Oduwaiye (2014) that the society regards possession of certificate as Alfa and Omega which pushes students to serious quest for certification instead of knowledge and skills.

With regards to the challenges faced by students during computer based test, it was found that lack of basic computer Knowledge and skills, none familiarization with computer based test and phobia in using the computer were the major challenges faced by students in the conduct of computer based test. This was in line with the submission of Onyibe, Juliana and Abdulkarim (2015) that many school leavers in the country are not conversant with computer. It was equally reported that many primary and secondary school teachers were 'analogue' and as such lack the much needed skills to impart ICT skills to students.

Findings of the study equally revealed that the use of computer based test serves as a viable tool in curbing the rate of candidate impersonation, copying other peoples' work, collusion among candidates, favorable award of marks, leaking of examination question papers and illegal assistance to students. This corroborated the work of Sanni and Mohammad (2015); Aduwa-Ogiegbaen and Iyamu (2005) that computer based test if properly used have the tendency to reduce the alarming rate of examination malpractice, enhanced security in the conduct of examinations and immediate feedback.

Conclusions

Based on the findings of the study, it was concluded that the emphasis on certificates over the acquisition of necessary skills and competence, poor teaching facilities and poor study habit among the students are the root causes of the widespread examination malpractices. On the other hand, lack of basic computer knowledge and skills, none familiarization with computer based test and phobia in using the computer were the major challenges faced by the students during the conduct of computer based test. It was equally concluded that the use of computer based test is effective in curbing the rate of examination malpractices among the students.

Therefore, students' assessment in our universities should always covers the three learning domains because too much emphasis on cognitive ability pushes students that are less endowed with such ability to engage in examination malpractices. Furthermore, primary and secondary schools should equip their computer laboratories with adequate number of computers so that computer lessons are hands-on with a view to equip the students with the necessary competences and skills required for computer based test in the future. Similarly, due to the effectiveness of computer based test in curbing most of the prevalent forms of examination malpractices, external examination bodies and institutions of higher learning in Nigeria should adopt the use of CBT examinations.

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