

COLLEGES OF EDUCATION STUDENTS' PERCEPTION ON E-EXAMINATION AS AN ASSESSMENT TOOL IN OYO STATE

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Abstract

Educational systems are thus looking to e-learning programs to help address educational challenges and to substantially improve the quality and content of their education. Integrating e-examination into existing educational system can, however, be a major challenge. This study investigated the Colleges of Education Students Perception on E-Examination as an Assessment Tool in Oyo State Nigeria. A sample of 1500 respondents who are 200 level students of the colleges of education in the state were selected using multi stage sampling technique. A structured questionnaire developed and validated by the researchers was used to collect data for the study. Descriptive statistics was used to describe the demographic data as well as research question while test of the hypotheses was done using inferential statistic. T-test was used to test hypothesis one and ANOVA was used to test hypothesis two at 0.05 level of significance. The result revealed that college of education students had positive perception on the use of e-examination as tool for assessment and that both gender and course of study are not barriers for colleges of education students' perception on the use of e-examination as an assessment tool. Based on the findings of this study, it was recommended that the college of education management should be ready to adopt the use of e-examination and that Provision should be made for facilities that will bring about effective adoption of e-examination in the college.

Keywords: E-examination, Perception, and Assessment

Introduction

The massive examination leakages, demand for gratification by teachers, bribe-taking by supervisors and invigilators of examinations have become a global phenomenon. This menace has resulted to general fallen standards of education, particularly among developing nations and Nigeria is not an exception. Consequent upon this, all Nigerian higher institutions are looking for a way out which has resulted to conducting Post-Entrance or Post-JAMB examination/screening because of lack of trust and confidence in the conduct of the entrance examinations, although the advent of web applications into the computing technology has brought about a significant revolution in our social life including the traditional system of education and examination.

Many institutions are beginning to re-evaluate their traditional methods and have considered providing pedagogical materials through the Internet. One important area of application of the web technology is in the development of web-based testing and assessment (Iyilade et al, 2005). Web-based testing and assessment systems offer greater flexibility than the traditional approach because test could be offered at different times by students and in different locations (Venon, Diana, and Fleet, 2004). More importantly, questions could be shuffled having the same structure and level but different contents. Basically, the electronic examination system involves the conduct of examinations through the web or the intranet and it reduces the large proportion of workload on examination, training, grading and reviewing. The set of questions often used in the e-examination system are multiple choice objective tests and quizzes that can be formally and easily evaluated online.

With the introduction of e-exams, institutions still grapple with serious issues including the preparedness of the learners coping with more technicalities associated with electronic examinations. Unfortunately, there is shortage of research on students' perception of e-exams in Nigeria. This study therefore seeks to take a critical look at how the adoption of electronic examination would have assisted Nigeria colleges of education especially in Oyo town in the evaluation phase of students' study circle as well as the architecture for electronic examination as implemented by their university counterparts. It is a fact that learners' attitude towards e-learning activities could be seen as the product of their perceptions of the usefulness of e-learning and the level of technical difficulty envisaged to be encountered while exploring the potentials of e-learning technology. In other words, the negative or positive perception of learners' ease of technology use and the value associated with its use in educational processes have greater influence on their intention to explore the potentials of the technology.

Learners' decision about the use of ICT for learning process is affected by factors such as demography, areas of specialization, gender, school type, intellectual enhancement, training, enabling environment, and individual's perception (Hochlehnert, Brass, Moeltner, & Juenger, 2011). Ayo, Akinyemi, Adebisi, & Ekong. (2007) define e-examination as a system that involves the conduct of examinations through the web or the internet. E-assessment in its broadest sense is the use of information technology for any assessment related activity Ayo et al. (2007) also opined that e-examination reduces the large proportion of workload on examination, training, grading and reviewing, thus bringing about the ability for the institution to release examination results in record time. This is because where the lecturer would spend weeks marking scripts manually, the computer would grade the students as soon as they finish their paper.

Adebayo and Abdulhamid, (2008) opined that e-examination was introduced to address series of anomalies being encountered in the manual tests and that, the e-examination would remove all human errors recorded in manual examination and create opportunity for students to access their results immediately. With this, we have removed so many hiccups in the compilation of answer scripts and movement of examination papers from one part of the country to another. The examination is conducted now through the net and that, it would be difficult for students to carry out any form of examination malpractice. This paper assessed the college of education students' perception on e-examination in Oyo State.

Research Question

1. What is the college of education students' perception on e-examination in Oyo state?

Hypotheses

Ho₁: There is no significant difference in the perception of COE students in e-examination based on gender.

Ho₂: There is no significant difference in the perception of COE students in e-examination based on course of study.

Methodology

This study is a descriptive research, using survey method. The target population for this study consisted of all colleges of education students in Oyo state. Purposive sampling technique was used to select all 200 level students in the three government owned colleges of education in Oyo state. As at the time of this research, the three colleges of education in Oyo state have a total population of 6000 students in 200 level. 1500 from 200 level students across the disciplines in the three colleges of education in Oyo state were sampled, representing 25% of the total population of the 200 level students using proportionate sampling technique which was deemed suitable by the researchers as being fair representative of the whole population. The research instrument was developed to elicit students' response on the use of e-

examination. The instrument went through validation by scholars in the field of educational technology, and reliability test before it was administered on the students. The test-re-test reliability method was used with reliability index of 0.88. A pilot study was carried out by using 50 students of 200 level students from Kwara state college of education, Ilorin. The researchers with four research assistants administered the research instrument to the participants and waited to collect the filled questionnaires to avoid attrition. Out of 1,500 students that were given questionnaire for the study, 1,432 were returned which is 95.5% and were used for the analysis, percentage was used to answer the research question while t-test statistic was used to test hypotheses 1 while ANOVA statistic was used to test hypothesis 2. They were tested at 0.05 alpha level.

Results

The results of data analysis of the study are presented in tables 1 to 5 below.

Table 1:
Socio-demographic variables of the respondents.

Variables	Frequency	Percentage (%)
Gender		
Male	617	43.1
Female	815	56.9
total	1432	100
Course of study		
Sciences	320	22.3
Languages	275	19.2
Arts and social sciences	288	20.1
Eccped	267	18.7
Voc. and tech.	282	19.7
Total	1432	100

Research Question 1: What is the college of education students’ perception of e-examination in Oyo state?

Table 2:
COE students’ perception on e-examination

S/N	Perceived use of e-examination	Mean (x)	
1.	The use of examination will be difficult for me	1.10	Rejected
2.	Using examination in the college is frustrating	1.15	Rejected
3.	The use of e-examination will reduce examination Malpractices	3.50	Accepted
4.	Power failure will hinder e-examination	1.40	Rejected
5.	E-examination will reduce examination stress	1.7	Accepted
6.	The use of e-examination will require additional computer Skill knowing about computer	2.84	Accepted
7.	The use of e-examination will make many students to fail	1.75	Rejected
8.	The use of e-examination impedes cognitive thinking	1.12	Rejected
9.	I think positively about using e-examination	3.20	Accepted
10.	The use of e-examination improves students academic performance	3.22	Accepted

Acceptance level = above 2.00; rejection level = below 2.00.

The responses in table 1 revealed that the decision on the statement that the use of e-examination is difficult was rejected (mean of 1.10). Most of the respondents disagreed with the statement generated

under that using e-examination in college is frustrating. The statement was also rejected (mean 1.15). The decision on item that e-examination will reduce examination malpractices was accepted (mean 3.50). The respondents still accepted that e-examination will reduce examination stress with mean score of 3.17. The respondents also accepted the statement that e-examination will require additional computer skills with average mean score of 2.84.

Furthermore, the respondents accepted that unstable power supply will hinder the use of e-examination in colleges with mean score of 2.70. The respondents rejected that e-examination impedes students' cognitive thinking with mean score of 1.12. Respondents also accepted that the use of e-examination will improve students' academic performance with mean score of 3.22. Respondents also rejected that e-examination will make students fail with mean score of 1.75 and lastly, the respondents also accepted that they think positively about using e-examination with mean score of 3.20.

Hypothesis One:

H₀₁: Thus there is no significant difference in the perception of COE students in e-examination based on gender.

Table 2:
t-test of male and female COE students on their perception on e-examination

Gender	No	X	SD	DF	T	sig. (2-tailed)
Male	617	27.57	4.33	1430	.95	.35
Female	81527.52	4.62				
Total	1432					

According to table 2, $t(1423) = .95, p = .35$. That is the result of t-value of .95 resulting in .35 significance value was greater than 0.05 alpha value. This means that the stated null hypothesis was not rejected.

Hypothesis Two

H₀₂: There is no significant difference in COE students' e-examination perception based on course of studies.

In order to establish whether significant difference existed among COE students from different course of studies (Sciences, Arts & social sciences, Eccped, Languages & voc. & tech.)

Table 4:
The ANOVA of COE students' e-examination perception based on course of studies

	Sum of square	df	mean square	f	sig
Between groups	.195	4	0.68	.547	.750
Within groups	117.318	1427	.206		
Total	117.513	1431			

Table 4 revealed that there was no significant difference among colleges of education students perception based on course of study $F(4,1427) = .547, p = .75$, therefore meant that the null hypothesis was not rejected because the significant value (.75) was greater than the 0.05 alpha level.

Discussion of Findings

The findings of this study revealed that e-examination is not difficult. Though it may require some materials and skills for its conduct, it is still useful especially in this 21st century. This corroborates the

findings of Adegbija et al (2009) and the assertion of Attewell (2005), that adopting e-assessment has more radical implication than just changing the mode of assessment. Findings also showed that the respondents accepted that e-examination will reduce examination malpractice, that e-examination will reduce examination stress. This is against the expectations of some that e-examinations will create unnecessary tension on students because of its modus operandi. It is also true because examination leakages and impersonation will be drastically reduced because new technologies have made it impossible for students to cheat because each student is served with his/her own questions which may be different from the student sitting next to him. As found out by Adegbija et al. (2009) it was also shown that the use of e-examination does not impede cognitive thinking of students in as much it requires critical reading to cover all areas taught and even in detail in order to pass their examination. The study also, confirmed that unstable power supply hindered e-examination uses in colleges of education. And lastly, it was revealed that e-examination is not frustrating and that respondents think positively of using e-examination.

The findings indicated that college of education students had positive perception on the use of e-examination which was in agreement with findings of Olubiyi, Ajadi, and Inegbedion (2011) who revealed that the students' perception lies on reduction of examination malpractice, wide coverage of the scheme, academic performance among others. Olubiyi et al (2011) also reported the views of Prof. OluJegede as cited in Awosiyan (2010) that students academic performance is likely to improve since the students are likely to be more committed to their studies with a view that there might not be opportunity to cheat in examination; also because of fewer distractions in the examination hall they are likely to have more concentration since the students know that questions would cover almost every aspect of the scheme there is the tendency for them to study more.

The findings also, revealed that gender is not a basis for COE Students' perception on the use of e-examination.

Conclusion

This study examined college of education students' perception on e-examination. It was discovered that e-examination would solve the associated problems with traditional methods. The system has the potential to drastically reduce examination malpractices. E-examination has the advantage of being easy to administer, ability to offer instant results to applicants, devoid of paper work and long time in marking the scripts which in most cases are prone to errors and misplacement of some scripts due to the large answer scripts that have to be marked and accessed.

Recommendations

Based on the findings of this study, the following recommendations were made

1. The college of education management should be ready to adopt the use of e-examination
2. Provision should be made for facilities that will bring about effective adoption of e-examination in the college

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