

INVESTIGATING STUDENTS' VIEWS ON E-ASSESSMENT: A CASE STUDY OF UNIVERSITY OF ILORIN, ILORIN, NIGERIA

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Abstract

This study investigated the views of students on e-assessment used by the University of Ilorin, Nigeria. In order to achieve the objectives, a researcher designed questionnaire was the instrument used to gather data from randomly selected 400 students of the institution. The data collected were analyzed using frequency counts, percentages and chi-square was used to analyze the only hypothesis generated. The findings showed that all the students involved in the study did not prefer on-line registration of their courses, most of them disagreed that females consider e-assessment stressful and there was a significant difference between the views of male and female students on e-assessment in the University of Ilorin. It was recommended among others that the University should assist students by creating more cyber cafes on the campus so that the students can register with fewer difficulties, provide more computers and the need to help the students to be more computer literate.

Keywords: E-assessment, Views, University of Ilorin, Computer-based Test (CBT)

Introduction

Since the inception of education, assessment, evaluation, tests or examination have always been a part of the educational system, although the type of assessment carried out had always been the manual or “paper and pencil type”. The type of e-assessment done in the University of Ilorin for the past four years is through the computer based tests (CBT). E-assessment movements or policies emerged in Nigeria as far back as 1977. The idea of National Open University as reflected in the National Policy on Education in Nigeria states that maximum efforts will be made to enable those who cannot benefit from higher education to be given access to it and that such access may be through universities or correspondence courses, or open universities, or part-time and work study programme (FRN, 1977, 6). It was this policy statement that paved the way for e-assessment in Nigeria with National Open University (NOUN), as the first to embrace it.

Literature Review

Information and communication technology in education

The world is now undergoing an information technology revolution that is dramatically changing every facet of human life from education, industry, economy, politics, culture and medicines to a myriad of others. According to Abimbade (2006), the impact of technology worldwide has led to the globalization of information and communication technology in education. The effects of technology can be experienced at all levels and forms of education. According to Osunrinde (2002), through the marriage of information and technologies (ICT) a new revolution has started to emerge and is seriously changing the old systems in which individuals, government, public and private sectors operate. Bamikole (2002) describes information technology (IT) as the creation, collection, storage, processing, display and use of information by people and machine.

Adegbija (2003) describes ICT as the handling of and processing of information via electronics devices. Electronics devices in this content can be television, radio, computer, projectors and many other gadgets adopted and adapted to teaching. Therefore ICT can be seen as a combination of several electronic devices involved in the recording, processing, storage, and transmission of information in various forms among human beings. Osunrinde (2002) also asserts that through ICT the world which has become a “global village” with rapid interaction and response effects, is fast becoming a “global room” to “zero space”.

Ayo, Akinyemi, Adebisi and Ekong, (2007) opine that, 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. The rapid change in our entire life influences directly or indirectly the systems that control our knowledge, skills and behaviour. The evolution of our culture is one of the major indicators for this change. Our educational system has been influenced by this rapid change over the time and technology is increasingly used in learning settings.

Assessment as a part of the educational system is exposed to the same technological changes. Specialists have taken care to adapt the learning system with cultural changes in the society but unfortunately they have not properly focused on performance measures and feedback. E-assessment research is an attempt to keep pace with modern learning settings but still provides room for interesting and challenging research.

Using computers to assist assessment task has been an interesting research topic for decades. However, developments have mainly transferred traditional assessment approaches into computer environments, in order to automatically grade students’ assignments and types of assessment approaches have been further limited (Elliot 2008). Consequently, the rapid increase of using technology in learning settings expedites also the need for new technology-based assessment. Our life has been influenced by a revolution in the field of information and technology. As a result, peoples’ mentality has changed significantly in the recent years. Consequently, pedagogy has become affected and educationalists have also started redesigning educational systems (Prensky, 2001).

Learning is no more divided because there is no more separation between schools’ education and workplace experience. This is because students are exposed to computer knowledge and the use of Internet facilities to facilitate teaching and learning which have bridged the gap between the school and the world at large. Acquiring knowledge is a continuous learning process. According to Jegede (2005), Learning is a continuous process over lifetime, it is a lifelong process. Therefore, a new paradigm for assessment in lifelong learning is becoming important. Changing education from memorizing facts to higher levels of comprehension and synthesis requires building and assessing critical-thinking skills. According to Hayes, (1999), measuring knowledge is important but is not enough.

The term e-assessment is a broadly-based one, covering a range of activities in which digital technologies are used in assessment or appraisal of students’ performance. Such activities include the designing and delivery of assessments, marking – by computers, or humans assisted by scanners and online tools – and all processes of reporting, storing and transferring of data associated with public and internal assessments. E-assessment is the end-to-end electronic assessment processes where ICT is used for the presentation of assessment activity, and the recording of responses. This includes the end-to-end

assessment process from the perspective of learners, tutors, learning establishments, awarding bodies and regulators, and the general public (JISC/QCA, 2009).

Gender and information and communication technology (ICT)

Traditionally, technology is a male sphere, and research has previously shown that males have a greater interest in technology itself than females. Females want to *use* the technology ([Durndell, et al. 1995](#); [Turkle, 1988](#)). Tapscott ([1997](#)), on the contrary, says that he cannot see any difference between how male and female use the Internet when he studies what he calls the Net generation or N-Gen. N-Geners are people born after 1977. They have grown up in the digital age, and he predicts that when the N-Gen takes over, at least there will be equality between the sexes on the Internet. More recent statistics have shown that, unlike earlier statistics, females are as frequent Internet users as males ([Carlsson & Facht 2002](#)). Jackson, *et al.* ([2001](#)) got the same result, but in their study women used e-mail more than men did, and men searched the Web more than women did.

University of Ilorin and computer based test (CBT)

Among the regular or conventional universities in Nigeria, University of Ilorin is the pioneer of computer based test for assessing students. In its strategic plan, the institution also deliberately adopted the use of ICT in assessment of its academic programs especially at the undergraduate levels. E-assessment started in 2008 at the University of Ilorin. Since the adoption of e-assessment at the University, the result seems to be encouraging. As a result and based on its sustainability over the last four years and because of its advantages over the manual method of assessment, there is an increase in the numbers of other institutions of higher learning and other examination bodies who have adopted it. These include (Federal university of technology Minna, West Africa Examination Council (WAEC), National Examination Council (NECO), UTME, National Teachers Institute (NTI), Teachers Registration Council of Nigeria (TRCN), among others. Therefore, this study sought to assess the views of students on e-assessment using the University of Ilorin as a case study. This may further encourage the use of e-assessment, which is a technological approach to assessing students' performance on a wider range.

Purpose of the Study

The main purpose of this study was to investigate the views of students on the use of e-assessment at the University of Ilorin, Ilorin, Nigeria. It specifically focused on the following:

1. general views of the students of University of Ilorin e-assessment,
2. the influence of students' gender on the students' views of e-assessment in the University of Ilorin

Hypothesis Testing

There is no significant difference in the views of male and female students' on the use of e-assessment in the University of Ilorin.

Methodology

In order to investigate the views of the students of the University of Ilorin, Ilorin on e-assessment, a researchers' designed questionnaire was administered on the respondents which were randomly selected. A total of four hundred and fifty copies of the questionnaire were distributed out of which four hundred were retrieved after the respondents had filled them. The data obtained were analysed using frequency counts and percentages while Chi-square was used to test the hypothesis which the study sought to answer and test respectively.

Results of the Research

Table 1: Distribution of Respondents based on Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Males	238	59.5	59.5	59.5
	Females	162	40.5	40.5	100.0
	Total	400	100.0	100.0	

Table 1 shows the distribution of respondents based on gender. Out of 400 respondents 238 respondents representing 59.5% were males while 162 respondents representing 40.5% were females. The result signifies that majority of the respondents were males.

The results of the research are presented in the following tables

Table 2: Percentage of responses on the students' views on the use of e-assessment in University of Ilorin

S/No	Items	Strongly Agree	Agree	Disagree	Strongly Disagree
1	I prefer online registration of my courses to the manual registration	-	-	-	100.0%
2	I prefer writing all examinations online (Computer Based Test)	33.0%	40.5%	26.5%	-
3	I spend less time when doing on-line examination	32.8%	41.0%	26.3%	-
4	I am more comfortable with taking CBT examinations than paper-pencil based one	32.0%	23.3%	26.8%	18.0%
5	Online examination does not allow me to express my mind	58.8%	32.0%	9.3%	-

Table 2 shows the percentages of the responses of the students' views on e-assessment (also referred to as computer based test (CBT) or online examinations). The result revealed that majority (100%) of the respondents do not prefer registering their courses online. 33.0% and 40.5% of the respondents strongly agreed and agreed that they prefer writing all examinations online while 26.5% disagreed with the assertion. Also, 32.8% and 41.0% of the respondents strongly agreed and agreed respectively that they spend less time when doing CBT examinations while 26.3% of the respondents opposed the statement. In addition, 32.0% and 23.3% of the respondents strongly agreed and agreed that they are more comfortable with taking CBT examinations than paper and pencil or manual one, while 26.8% and 18.0% of the respondents disagreed and strongly disagreed respectively with the statement. Finally, 58.8% of the respondents have also revealed that CBT does not allow them to express their mind while 9.3% of the respondents opposed the assertion. This result implied that majority of the respondents prefer writing all examination online and they spend less time when doing CBT examinations. In addition, the result indicates that, students are more comfortable with taking CBT examinations than paper-pencil based one, but that CBT does not allow the students to express their mind.

Table 3: Responses on students' views on the influence of gender on e-assessment in the University of Ilorin

S/No	Items	Strongly Agree	Agree	Disagree	Strongly Disagree
1	Females consider e-assessment to be	-	27.0%	41.5%	31.5%

2	more stressful Gender does not influence my views on e-assessment	36.3%	49.3%	14.5%	-
3	Males prefer e-assessment to paper and pencil examinations	33.0%	-	58.0%	9.0%
4	Females find it hard to concentrate than males during e-assessment	8.3%	27.3%	50.0%	14.5%
5	Gender should not be regarded as an issue when considering e-assessment in the University	41.3%	32.3%	17.8%	8.8%

Table 3 shows the responses of students' views on the influence of gender on e-assessment in the University of Ilorin. The results showed that the respondents strongly disagreed and disagreed that females consider e-assessment to be more stressful (41.5% and 31.5% respectively). Also, 36.3% and 39.3% of the respondents strongly agreed (36.3%) and agreed (39.3%) that gender does not influence their views on e-assessment while only 14.5% disagreed with the statement. In addition, the results showed that more than half the respondents (58.0%) disagreed that male students prefer e-assessment and only 33.0% of the respondents strongly agreed to the statement. Only 8.3% and 27.3% of the students strongly agreed and agreed that females find it hard to concentrate than their male counterparts when doing CBT examinations. 50.0% and 14.5% of respondents disagreed and strongly disagreed that females find it harder to concentrate than males during e-assessment examinations. Additionally, 41.3% and 32.3% of the students strongly agreed and agreed respectively that gender issue should not be considered in e-assessment at the University. However, 17.8% and 8.8% of the respondents disagreed and strongly disagreed with the assertion.

Hypothesis: There is no significant difference in the views of male and female students on e-assessment in the University of Ilorin.

Table 4: Chi-Square Analysis on the Views of Male and Female Students on the e-assessment in the University of Ilorin

	Observed N	Expected	Residual	Cal.X ²	Df	Crit.X ²	Sig
Male	238 (59.5%)	200.0	38.0				
Female	162 (40.5%)	200.0	-38.0				
Total	400			14.440	1	3.841	<.05

The result of the hypothesis showed that the calculated chi-square of 14.440 at degree of freedom 1 is greater than the tabulated chi-square of 3.841 (i.e. $\text{Cal.X}^2 = 14.440 > \text{Cri.X}^2 = 3.841$, $\text{df} = 1$, $P < .05$). Therefore, the hypothesis is hereby rejected. This implies that there is a significant difference in the views of male and female students on e-assessment in University of Ilorin with male perceiving it more positively than their female counterparts.

Discussion

The main purpose of this study was to investigate students' views on e-assessment using the University of Ilorin, Ilorin, Nigeria as a case study. E-assessment is also referred to as computer based test (CBT) or the on-line examinations by the University community. The study showed that all the students that responded to the questionnaire did not like on-line registration. This may be due to the hardship experienced in the process of on-line registration because of factors such as inadequate accessibility or connectivity to Internet in Nigeria as a whole. The students have to be searching for commercial cyber cafes to carry out their registration. This corroborates the findings of Adegbija & Daramola' (2007) research findings which showed that students are not adequately connected to Internet facilities in the University and it hampers the use of the Internet among the students. Students have to use the cyber cafes outside the campus which charge them heavily, besides other problems usually encountered. But many of the students are not totally against the use of CBT because the University provides all the materials (including the computers) used for the on-line examinations.

Furthermore, the only hypothesis tested in this study showed that there was a significant difference between the views of male and female students on e-assessment in the University of Ilorin with male perceiving it more positively than their female counterparts. This view is not in agreement with Tapscott (1997) findings which has been discussed but agreed the findings of Jackson (2001).

Conclusion

E-assessment is an essential part of the University way of determining the performance of its students through the electronic examinations. This is also referred to as computer based test (CBT) which was started with the intention of making the conduct of examinations easier, faster (especially marking), more objective and scientifically based. As a new innovation or development in our educational system, there are challenges confronting the use of the e-assessment or CBT. The problems of inadequate computers, fewer and poorly equipped cyber cafes where students are expected to register on-line, most students do not have adequate access to the Internet, computer literacy, constant electricity supply, are challenges to be overcome for this innovation to be fully established as a mode of assessment in the University of Ilorin and in Nigeria as a whole.

Recommendations

Based on the findings of this study, the following recommendations were proffered:

1. The University should provide more cafes on campus where students can do their on-line registration with fewer difficulties.
2. Students should be more exposed to computer literacy in order to make on-line assessment easier for them.
3. The CBT should include sections where students can have the opportunity to express their minds, such as comprehension sessions or essays.

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References

- Abimbade, A.(2006). *Providing Information and Communication Technology (ICT) Environment for Teaching and Learning, Education this Millennium: Innovation in Theory and Practice* . Journal of E-learning (JOEL). 2(1):106-136.
- Adegbija, M.V. & Daramola, F.O. (2007). ‘Evaluation of Computer Education Technology in Higher Institutions in Ilorin’. *African Journal of Educational Studies (AJES)*. 5 (1): 150 – 161
- Adegbija, M. V. (2003). ‘Information and communication technology in women education in the new millenium’. *Forty Years of Educational Technology in Nigeria*, 2, 16-24.
- Ayo, C. K. Akinyemi, I .O. Adebisi, A. A. & Ekong, U. O. (2007). ‘The prospects of e-examination implementation in Nigeria’. *Turkish Online Journal of Distance Education*. 8 (4): 125-134.
- Elliot , B. (2008). ‘Assessment 2.0: Modernising assessment in the age of web 2.0. Scottish Qualifications Authority’, *Evaluation*, 23 (4): 279-298.
- Jackson, D. & Usher, M. (1997). Grading Student Programs using ASSYST. In *Proceedings of the 28th SIGCSE. Technical Symposium*. 335 – 339
- Jegede O. (2005). Towards a New Paradigm for Assessment in Lifelong Learning, *Presented at the International Association for Educational Assessment (IAEA) Conference* held at Abuja from 5-9 September 2005.
- Osunrinde, A.A (2002). The relevance of information technology in research works: The case of higher institution in Nigeria. *Nigeria Journal of Emotional Psychology and Sport Ethics*. Ibadan: Gab Educational Ltd.
- Volery, T. & Lord, D. (2000). ‘Critical success factors in online education’. *The International Journal of Educational Management*, 14(5): 216-223 <http://www.essaybay.com/articles/linguistics4.pdf> (accessed on 21 Dec 2010)